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Unit organization of four topics in occupations

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UNIT ORGANIZATION OF FOUR TOPICS IN OCCUPATIONS

Service Paper

Submitted by

Mary Agnes Finn

(B.S. in Ed., Salem State Teachers College, 1942)

In partial fulfillment of requirements for the degree of Master of Education

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CHAPTER I

THE SCOPE OF THE STUDY

Statement of the Problem

The problem and purpose The problem for this study is the organization of four source units of work in occupations for use in junior high school. The purpose of the study is to provide the teacher of occupational information with a series of sample units, including a carefully selected and annotated list of source materials, which may be adapted for use in the local situation.

Definition of the unit method as used in this study The unit method on which this study is based is defined as "a systematic way of taking into consideration and applying with due emphasis every basic educational principle which should function in every good teaching-learning cycle."[1] It is the procedure developed by Dr. Roy O. Billett, of Boston University; and the terms used are those defined in his course[2] and text.[3]

Basis for division of units The division of units used in this study is based on the DICTIONARY OF OCCUPATIONAL TITLES, Part IV--Entry Occupational Classification, Section II--Classification Factors.[4] Part IV classifications

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1. From a course entitled "The Unit Method in the Secondary School" given at Boston University School of Education by Dr. Roy O. Billett.
2. Ibid.
3. Billett, Roy O., FUNDAMENTALS OF SECONDARY SCHOOL TEACHING WITH EMPHASIS ON THE UNIT METHOD. Boston: Houghton Mifflin Company, 1940.
4. War Manpower Commission, Bureau of Manpower Utilization, DICTIONARY OF OCCUPATIONAL TITLES. Washington: Government Printing Office, 1944.

"describe fields of work and not specific occupations"[5] and are, therefore, more suitable for use at the junior high school level where our purpose is "distinctly not to encourage early occupational choices but to lay the foundations of interest, appreciation, and understanding of occupational life."[6]

Section II of Part IV of the DICTIONARY OF OCCUPATIONAL TITLES divides all occupations into nine broad areas:

1. Special Talent Group
2. Organized Knowledge Group
3. Clerical Group
4. Public Contact Group
5. Service Group
6. Primary Outdoor Group
7. Trade Learner Group
8. Coordinative Work Group
9. Manual Labor Group

The Section II, Part IV groupings are based on the significance of personal traits[8] and are, therefore, more functional than the divisions provided by Part II of the DICTIONARY OF OCCUPATIONAL TITLES[9] or the United States census classifications.

This study proposes sample units covering each of the following areas:

1. Organized Knowledge Group
2. Service Group
3. Clerical Group
4. Primary Outdoor Group

Another study has been prepared[10] covering the five groups not considered in this study.

Basis for grade placement In the ideal situation, the regular school subjects will have been enriched with occupational information and appreciations from the very earliest grades. Through such an introduction, the child

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5. War Manpower Commission, Op. Cit., p.VI.
6. Billings, Mildred Lincoln; GROUP METHODS OF STUDYING OCCUPATIONS. Scranton: International Textbook Company, 1941, p. 62.
7. War Manpower Commission, Op. Cit., pp. 160-164.
8. Ibid., p. 158.
9. War Manpower Commission, Op. Cit.
10. McLaughlin, James A.; TEACHING OCCUPATIONAL INFORMATION IN THE SOCIAL STUDIES PROGRAM, Unpublished Service Paper, Boston University, 1947.

will naturally develop a respect for all workers, an appreciation of the services of others, and a desire to make his own contribution. However, there are several factors which, even in the ideal situation, indicate the advisability of including in the curriculum a survey course or series of units on the world of work at the junior high school level. This point of view is clearly expressed by Mildred Lincoln Billings.[11]

> Occupational information gained through school subjects, even though carefully woven into the curriculum and planned so as to prevent overlapping, needs to be centered in a comprehensive unit of study on the world's work. Pupils who have had simple occupational information introduced throughout the grades will be ready for such a course in the latter part of the junior high school years or in the first year of a four-year high school. This course, through a survey of the fields of human activity, will bring into focus the scattered information already acquired. Such a general course should precede the age at which pupils may leave school. It may be introduced as a unit in the homeroom, in the social studies, or it may be a separate course in the curriculum especially for the study of educational and vocational opportunities. In any case, it is a fundamental core around which information through other school subjects may be correlated.
>
> After such a concentrated survey unit on occupations has focused interest and opened wider vistas, occupational information, when again introduced through school subjects, will be better integrated than without such a general course of study in advance.

Need for adaptation No one can furnish a creative teacher of any subject with lesson plans ready-made for use. This is especially true of the teacher of occupational information for, according to Barbara H. Wright, her course "should be a laboratory course organized to solve problems which pupils want to solve; and the laboratory should be the community."[12] However, the individual teacher can take suggestions concerning content and procedure and, through concrete experience, practical application, and personal

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11. Billings, Op. Cit., p. 229.
12. Wright, Barbara H.; PRACTICAL HANDBOOK FOR GROUP GUIDANCE. Chicago: Science Research Associates, 1948, p. 109.

contacts, adapt the material and relate it to his own experience and that of his pupils.[13]

Factors which may influence the adaptation of the unit There are many factors which may influence the adaptation of the unit. The teacher should endeavor to collect as much information as possible concerning the class, school, and community in which the unit is to be taught and use this information in building a unit that will do the most to develop the individuals in his group.

Some factors which may prove pertinent are

1. Nature of the individuals in the group
    a. Previous school experience
    b. Present school program
    c. Chronological age
    d. Aptitudes and abilities
    e. Goals and purposes
    f. Interests, likes and dislikes
    g. Social development and adjustment
    h. Home background
    i. Community environment
    j. Emotional status
    k. Health record and present health status
    l. Economic and financial status
    m. Out-of-school activities
    n. Previous knowledge of occupations
2. Nature of the school
    a. Size and nature of classroom

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13. Billings, Op. Cit., p. 175

b. Size and nature of class groups

c. Supply of books and magazines

d. Provisions for display

(1) Bulletin boards

(2) Sand tables

(3) Scrap books

(4) Tables

e. Provisions for storage

(1) Bookcases

(2) Filing cabinets

f. Opportunity for try-out experiences

(1) Special courses

(2) School shops

(3) Clubs

(4) Student government

(5) School newspaper

g. Library facilities

h. Courses offered

i. Requirements for promotion or graduation

j. Faculty members with special training or experience

k. Students with special training or experience

l. Audio-visual equipment available

m. Provisions for use of audio-visual aids

n. Opportunities for correlating unit with work in other classes

o. Assembly programs

p. Type of classroom furniture

3. Nature of the community

a. Geographical location

b. Type of community--residential, agricultural, industrial

c. Service clubs and organizations

d. Libraries

e. Museums

f. Opportunities for part-time work experience

g. Young peoples' organizations

h. Opportunities for full-time employment

i. Individuals with special training or experience

j. Government agencies

k. Laws governing the employment of minors

l. Labor unions

CHAPTER II

THE ORGANIZED KNOWLEDGE GROUP

General Statement of the Unit[14]

The organized knowledge group includes workers in public service, technical, and managerial work which requires the capacity to acquire and apply the special knowledge involved in social service work, teaching, scientific study, research, engineering, drafting, law, medicine, business relations, or management.[15]

Delimitation of the Unit[16]

1. Organized knowledge workers may be divided into three groups:[17]

   a. Public Service workers

   b. Technical workers

   c. Managerial workers

2. The public service group includes workers who educate, instruct, guide, protect, and counsel individuals in the interest of their physical, mental, or spiritual well-being. Public service work requires the capacity to acquire the special knowledges necessary for the education of others; for the amelioration and solution of social, economic, and personal problems; or for the protection of others through the enforcement of laws or other regulations governing society.[18]

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14. Billett, Op. Cit., p. 505.
15. War Manpower Commission, Op., Cit., p. 17.
16. Billett, Op. Cit., p. 508.
17. War Manpower Commission, Op. Cit., p. 160-161.
18. Ibid., p. 17.

3. Persons interested in public service work should possess such traits as:[19]

a. Strong interest in people or their welfare

b. Ideal of service

c. Tolerance, patience, and tact

d. Poise

e. Respect for law, order, and governmental processes

f. Organizational ability to plan or develop activities and present facts clearly and concisely

g. Assurance of manner that will gain respect and win confidence

4. The possession of the traits desirable for public service work may be estimated from:[20]

a. Participation in service organizations

b. Interest and achievement in social studies

c. Leadership in clubs or school

5. The public service group might be further divided into:[21]

a. Instructive service workers

b. Social service workers

c. Protective service workers

6. Instructive service workers include persons who teach or train others either in programs of formalized education or in other educational activities.[22]

7. Social service workers include persons who serve others as social mentors, guides or advisors. The work may also require the ability to plan or conduct research toward this end.[23]

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19. War Manpower Commission, Op. Cit., p. 160-161.
20. Ibid., p. 160-161.
21. Ibid., p. 18.
22. Ibid., p. 18.
23. Ibid., p. 18.

8. Protective service workers are those who maintain order and enforce laws, regulations, practices, and codes governing morality, sanitation, immigration, traffic, fire prevention and control, or perform similar work of a protective nature.[24]

9. Technical or scientific workers include those whose work requires the capacity to acquire and apply systematized knowledge in scientific study, research, technical phases of drafting and engineering, medical or legal practice, business promotion, and similar activities.[25]

10. Persons interested in technical or scientific work should possess such qualities as:[26]

a. Intellectual capacity to absorb advanced training

b. Ability to relate abstract ideas, to reason analytically, and to organize facts

c. Perseverance

11. Possession of the traits desirable for technical or scientific work may be estimated from:[27]

a. Tests

b. Achievement in school courses related to vocational interests

c. Hobbies or group activities related to the specific vocational field

12. Technical or scientific workers may be divided into:[28]

a. Laboratory Science workers

b. Business relations and related workers

c. Geographical science workers

d. Engineering and related workers

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24. War Manpower Commission, Op. Cit., p. 24.
25. Ibid., p. 17.
26. Ibid., p. 161.
27. Ibid., p. 161.
28. Ibid., p. 19.

13. The laboratory science group includes persons whose work calls for one of the following:

a. Training in medicine or nursing and the ability to apply this training in the treatment of persons or animals for the care, cure, or prevention of disease or injuries[29]

b. Knowledge of one or more of the sciences dealing with food, drugs, or cellular structure and the ability to apply this knowledge to aid in the prevention of disease or the maintenance and promotion of health in plant and animal life[30]

c. Knowledge of chemical, physical, metallurgical or other types of analysis and testing methods and the ability to apply technical knowledge in analyzing and testing materials in order to:[31]

(1) Regulate and control the quality of an industrial product

(2) Discover new materials of commercial or scientific value

(3) Determine composition of various materials

14. The business relations group includes persons whose work requires one of the following:[32]

a. Ability to apply principles of accounting or to analyze costs or statistics

b. Knowledge of municipal, county, state, or federal laws, regulations, court decisions, and other legal data, and the ability to interpret this knowledge in

(1) Conducting law suits

(2) Drawing up legal documents

(3) Advising clients concerning their legal rights and obligations

29. War Manpower Commission, Op. Cit., p. 25.
30. Ibid., p. 26.
31. Ibid., p. 26.
32. Ibid., p. 27.

c. Knowledge of contracts, credit, marketing conditions, and applied psychology in order to buy or sell services or material or to develop sales or advertising campaigns

15. The geographical science workers are those whose work requires a technical knowledge of one or more of those sciences which treat of the condition of the earth and its relation to organic and inorganic materials.[33]

16. The engineering group includes:

a. Industrial engineers who design products, plan procedures, devise or arrange equipment or work to eliminate wasteful or unsafe practices or to increase production[34]

b. Structural engineers who develop and execute plans for the construction of such things as buildings, highways, bridges, dams, ships, or aircraft[35]

c. Mechanical engineers who design and efficiently operate machinery and mechanical equipment[36]

d. Electrical engineers who design and construct equipment for the generation, transmission, distribution, storage, and utilization of electrical energy[37]

e. Technical control workers who inspect, test, or operate complex machines or equipment requiring technical knowledge not usually associated with one of the other types of engineering[38]

17. The drafting group includes persons whose work requires skill in the use of drafting and/or surveying tools and the ability to apply technical knowledge in developing plans or patterns.[39]

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33. War Manpower Commission, Op. Cit., p. 28.
34. Ibid., p. 28.
35. Ibid., p. 28.
36. Ibid., p. 29.
37. Ibid., p. 29.
38. Ibid., p. 30.
39. Ibid., p. 30.

18. Managerial workers are those whose work requires dealing with people in planning, supervising, and coordinating the activities of an organization, either in accordance with specified policies and principles or on one's own initiative or authority.[40]

19. Teaching is the largest of the occupations which require college training and professional or semi-professional skill.

20. Professional teachers play an important part in making democracy work.

21. Teaching is not as easy as it appears to the outsider.

22. Compared to other occupations, particularly the professions, teaching salaries are low.

23. Teachers' salaries depend on many things, such as:

a. Sex (in some communities)

b. Experience

c. Training

d. Geographical location

e. Size of community

f. Grade level

g. Degree of success

h. Supply of available teachers

24. Salaries and provisions for teachers have improved during the past few years and probably will continue to do so.

25. Many school systems have adopted standard salary schedules, permanent tenure, and systems of benefits and retirement pay.

26. Teachers move about from position to position more than workers in many other fields.

27. Community activities make demands on the teacher's time.

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40. War Manpower Commission, Op. Cit., p. 32-35.

28. The community regulates the spare time activities of the teacher more than of other workers, but such regulations are becoming less frequent.

29. Personality and intelligence are both important in the teaching profession.

30. Teachers must have good health, both physica l and mental.

31. The work of teachers in different localities and at different grade levels calls for different types of ability and personality.

32. Few men teach in elementary school and the majority of those who do are part-time administrators in schools in rural areas.

33. There is a much higher percentage of men teaching in high school, but women teachers a re still in the majority.

34. Advancement to administrative positions is restricted almost exclusively to men, with the exception of elementary school principalships.

35. In many communities men receive higher salaries than identically qualified women doing comparable work. Other communities have laws granting equal pay to men and women.

36. In many communities, a woman may not teach after she is married.

37. Some communities require that teachers reside in the city or town in which they teach.

38. A teacher must satisfy the requirements set up by the educational authorities of the state in which he teaches.

39. The tendency in teaching is toward more training.

40. The demand for teachers and the supply of them vary greatly from year to year.

41. The growth of junior colleges will probably result in a need of more teachers at this level.

42. The schools are broadening their range of services and extending their functions, calling for more educational workers.

43. There is an increasing need for teachers in educational agencies outside the school.

44. Social work is a profession with many sides and numerous activities.

45. Most of the social workers are employed in family and child welfare work.

46. The field of social work is constantly enlarging and continually changing.

47. The majority of social workers are women.

48. Most social workers work in large cities.

49. The best executive positions in social service are held by men.

50. There are good opportunities for well-trained men in all phases of social work but especially in administration and research.

51. The long range trend in social work is definitely upward as new jobs are constantly being created.

52. The opportunities for advancement in social service are good.

53. Firemen are employed by municipal fire departments and by large factories which have their own fire fighting forces.

54. Firemen must pass civil service tests.

55. Policemen are employed by city, town, state, county, and federal governments; factories; banks; and other businesses.

56. Policemen must have a high school education in most communities and some require or prefer two or more years of college.

57. The probation officer is the guide and adviser of persons on probation. In juvenile cases his work centers about the home and school. In adult probation his work requires leadership, close observation of the probationers home and employment relations, and understanding of the health and recreational factors in the case.

58. The parole officer, like the probation officer, tries to correct the

influences that caused the crime and make a law-abiding citizen out of the offender.

59. Probation officers deal with delinquents who have been put on probation instead of being sent to prison; parole officers deal with those who have been in prison and have been given freedom upon condition that they lead honest lives.

60. The salaries of probation and parole officers vary widely depending upon thecommunity and the degree to which the service has been built up.

61. The young person who wishes to enter the profession of medicine should be guided not so much by the high reputation of the profession itself, but by his own qualifications for the work.

62. It is essential that the medical student:

a. Possess good health and steady nerves

b. Build up good resistance to withstand contact with disease

c. Develop an air of well-being that will instill confidence in his patients

d. Have a quick, alert mind that can shift from one case to another

e. Possess a cheerful temperament and disposition

f. Be able to meet people easily and try to understand them sympathetically

g. Feel a real scientific curiosity about chemistry, anatomy, bacteriology, physiology, and similar subjects

h. Keep abreast of new discoveries in the medical world

63. As in other professions, there is an unwritten code of ethics in the field of medicine.

64. Some of the advantages of the medical profession are:

a. Affords unlimited opportunities for investigation, experimentation , and usefulness

b. Gives the satisfaction of possessing the power to relieve suffering and overcome defects

c. Stimulates person to do his best at all times

d. Continually presents new challenges

e. Has a definite, high social standing

f. Gives freedom from worry about unemployment

65. Some of the disadvantages of the medical profession are:

a. People are slow about paying doctor's bills

b. Large amount of charity work

c. Limited social life because of demands on time

d. Uncertainty as to the number of hours a day he must work

e. Education is expensive and long

f. Tendency to concentrate in large cities

66. The medical profession requires from seven to nine years' study beyond high school. This study includes:

a. Two to four years in college

b. Four years in medical school

c. One year as intern

67. Scholarship standards are high and only one out of every ten applicants is admitted to medical school.

68. The young doctor must pass the board examinations before he can practice medicine. These examinations are given by the state examining board and must be passed before the young doctor can practice within the state.

69. One of the outstanding features of American medicine has been and still is the trend toward specialization.

70. There is still considerable prejudice against the woman doctor. However, there are women engaged in every phase of medicine who seem unaware that sex is any bar in the profession.

71. Compared with many other professions open to women, nursing has many advantages.

a. The nurse's education does not require a large financial outlay

b. The graduate nurse does not have to compete with men

c. Nursing training is a valuable asset in other fields of work

d. Nurses are prepared to render valuable service in times of war or calamity

e. Nursing training is excellent preparation for home-making

f. There are opportunities for part-time employment for married nurses

g. Nursing affords many opportunities to meet interesting people

72. Some of the disadvantages of nursing are:

a. The years of student training are sometime trying

b. When ready to go to a new position, the registered nurse must be on hand to answer calls at any moment

c. Some cases are particularly trying

d. The public health, visiting, or industrial nurse must make her calls regardless of the weather

73. Graduation from high school is the minimum educational requirement for admission in all the better schools of nursing.

74. It is becoming more and more common for nurses to have more than a high school education before entering nursing school.

75. The high school student who expects to follow the nursing profession should choose studies with that objective in mind. The following courses are recommended as meeting usual requirements:

a. Four years of English

b. Three years of science (biology, chemistry, physics)

c. Two years of mathematics (algebra and geometry preferred)

d. Two years of history

e. Two years of Latin or a modern language

f. Civics or sociology

g. Economics

76. There are two types of nursing schools:

a. Hospital schools which are controlled by hospitals and offer courses of instruction covering two and one-half to three years and leading to a diploma in nursing. A few of these schools require two or more years of college work, but the majority accept a high school diploma. Some hospital schools are affiliated with colleges or universities and offer a combined degree and diploma course of three or four years.

b. Collegiate schools of nursing which are affiliated with colleges or universities and offer a combined nursing and academic program of four to five years leading to a diploma in nursing and a baccalaureate degree.

77. Following graduation from either a hospital or collegiate school of nursing, a student must pass state board examinations in order to obtain legal recognition as a registered nurse.

78. Many schools have scholarships and loan funds for student nurses.

79. There are opportunities for men as well as women in nursing.

80. Dentistry is perhaps the least crowded of any branch of the medical profession.

81. State laws require licenses to practice dentistry, and candidates must pass a comprehensive examination before a license is granted.

82. Dentistry offers many advantages to the young man or woman of intelligence, superior mechanical ability, and an aptitude for painstaking detail work.

83. The dental technician works in a laboratory and prepares, from specifications submitted by the dentist, articles that will be placed in the mouth of the patient by the dentist.

84. The dental hygienist has two primary functions:

a. To give prophylactic treatments to children and adults

b. To teach oral hygiene

85. The dental hygienist may also x-ray teeth and chart cavities and thus prepare the patient for further dental treatment, but she may not fill cavities or give treatment for any mouth disease.

86. The dental hygienist must take a course in dental hygiene and secure a state license by examination.

87. The dental assistant assists the dentist at the chair, takes charge of the office routine, and carries through the simpler forms of laboratory technique.

88. Law is a highly competitive profession and, normally, overcrowded.

89. After graduation from law school, would-be lawyers must pass state bar examinations.

90. English, history, mathematics, public speaking, and foreign language are valuable courses for high school students who are interested in a career in law.

91. Engineering is a big term which includes:

a. Designing industrial products

b. Erecting buildings

c. Operating public utilities

d. Administering enterprises

e. Selling technical equipment

92. An engineer's work requires the ability to think in terms of numbers. He must:

a. Make exact measurements

b. Work out new formulas

c. Solve mathematical problems

d. Work with statistics and graphs

93. A person interested in engineering should be good at or interested in:

a. Mathematics

b. Space visualization

c. Skill with his hands

94. The ease with which you can learn algebra, trigonometry, geometry, and calculus is a good indication of your probable success in engineering.

95. The engineer must have the ability to see things before they are built.

96. In most engineering schools, all students take the same general course during the first two years and then specialize in a particular field of engineering in the last two years.

97. Statistics show that about only forty per cent of the students who go into engineering courses ever graduate.

98. The average engineer must do simple routine work for several years after graduation from school.

99. Engineers are employed by many different types of businesses and by the government.

100. Managerial workers are employed by all types of organizations. They must be able to handle people as well as have a thorough understanding of the particular type of business.

A. Introductory Activities

1. A carefully selected film might be shown and discussed by the class. (A list of suggested films is provided with this unit.)

2. If the class has been making an occupational survey of the community in connection with the study of occupations, a group discussion concerning the organized knowledge workers in the community might be held and a committee chosen to enter the markers indicating where organized knowledge workers are employed in the community. (For suggestions on making such an occupational survey, see Appendix A.)

3. If there is some individual in your class, school, or community who is especially interested in, has had some experience in, or made some contribution to organized knowledge work and knows how to present his story to pupils of the age group that you have in class, you might arrange to have this person talk to the class. (If you are inviting a lay man to speak to your group, be sure to provide this speaker with an outline of the topics you wish covered. For suggestions on making such an outline, see Appendix B.) Some people who might be contacted are

a. The school doctor, nurse, or dentist

b. The local public health or visiting nurse

c. The local fire or police chief

d. Librarian in charge of children's room at local Library

e. Representative of a local college or a college student who is a recent graduate of t he local high school

f. The personnel manager from a local industry

g. An engineer in charge of a local engineering project

h. A local social worker

i. Recreational worker from the Boys' Club, YMCA, YWCA, or other local youth organization

j. Your superintendent, principal or other school official

4. Plan a trip to some place where organized knowledge workers are on the job. A well-pla nned trip to the local high school might give the pupils an opportunity to observe several different organized knowledge workers, such as classroom teachers, guidance workers, school nurse, athletic coach, and principal. This visit might also serve as an introduction to the high school.

5. Have pupils make a list of as many organized knowledge workers as they can name. This might be done as a class activity in which the list is made on the blackboard or it may be done by having individuals or small groups compete to see who can compile the longest list. After the lists are completed, the teacher might indicate types of workers who were included and should not have been and workers who might have been included and were not.

After the list has been revised, the teacher might have the students note the different types of organized knowledge workers and divide the list into public service, technical or scientific, and managerial workers.

B. For Individual Study and Investigation

1. What are the three main divisions of the organized knowledge group? Describe the type of work performed by workers in each of these divisions.

2. List the traits that you think workers in the organized knowledge group should possess and check the traits that you think you possess. You might like to make a rating scale and rate yourself on these traits.

3. List any special traits that you think are important for specific groups of organized knowledge workers and rate yourself on these additional traits.

4. Write a composition entitled, "The Organized Knowledge Worker I Would Most Like to Be." If you do not think you would be happy and successful in any type of organized knowledge work, write a composition giving your reasons for so believing.

5. Name three types of service workers that might be included in the public service group and describe the work done by each type.

6. Name four types of technical or scientific workers and describe the work done by each type.

7. Define managerial work.

8. List some of the advantages and disadvantages of public service work as a career.

9. Compare the opportunities for men in public service work with those for women.

10. List the advantages of technical or scientific work as a career.

11. Compare the opportunities for women in technical or scientific work with those for men.

12. List the disadvantages of technical or scientific work as a career.

13. What do we mean when we say that there is a great deal of specialization in the medical field? Name five types of specialists in the medical field and describe the work of each.

14. Distinguish between professional and semi-professional workers.

15. Name three semi-professional workers and describe the work of each.

16. Make a list of the ways in which organized knowledge workers contribute to the life of our community.

17. Select three people whom you consider successful organized knowledge workers. (Try to find one in each of the three types of organized knowledge work.) Describe their work, their status in the community, and list the personal characteristics that you think have helped to make each a success.

18. What types of organized knowledge workers do we have in our community? List any types of organized knowledge workers that we do not have but need in our community.

19. Get a copy of the local high school program of studies and plan a four-year program for a person interested in:

a. A medical career

b. A public or social service career

c. An engineering career

d. A law career

Optional Related Activities

A. Oral Work

1. Prepare an oral report on one of the following topics or on some topic that you might care to suggest. If you use a topic other than those on this list, get the teacher's approval. Your talk will be more interesting for the class if it is illustrated so try to find pictures that will help to get your ideas across and will be suitable for use with the opaque projector. A member of the visual aids committee will be glad to help you set up the machine and show you how to use it.

   a. Unusual occupations in the organized knowledge group
   b. Motion pictures that show organized knowledge workers
   c. Radio programs that present information about organized knowledge workers
   d. A book about an organized knowledge worker
   e. Visit to a college or university
   f. The professional worker
   g. Professional ethics
   h. The American Medical Association or some other professional organization

2. Prepare and present a panel discussion on one of the following topics or on a topic that you might care to suggest. If you choose a topic that is not on this suggested list, get the teacher's approval.

   a. The education and special training required for organized knowledge work
   b. Everyone can't be an engineer
   c. Socialized medicine

d. New types of instructive service work

e. Specialization in the medical field

f. Who is a professional worker

3. Report on one of the following:

a. An interview with an organized knowledge worker. (If you are interested in this activity, prepare a series of questions that you plan to ask this worker and get the teacher's approval. Make an appointment for the interview well ahead of time.)

b. A trip to a place where organized knowledge workers are on the job, such as:

(1) A hospital

(2) Your own school

(3) A social service agency

(4) A large engineering project

(5) A court house

(6) A college

(7) An airplane trip

4. Prepare a debate on some controversial topic related to organized knowledge work. If you are interested in this activity, the teacher will be glad to help you word the resolution and locate sources of information.

5. Conduct a junior town meeting and discuss some of the problems of organized knowledge workers or young people interested in organized knowledge work.

6. Prepare a radio talk on one of the topics in 1-3 above or on some other topic concerned with organized knowledge work. Be sure to get the teacher's approval of topics other than those listed. You might like to record your talk on the school's recording machine and play it back to the class. Another suggestion would be to deliver the talk to the class over the school's public address system.

7. Prepare and present a skit illustrating

a. Managerial workers must be able to handle people as well as ideas and materials

b. Teaching is not as easy as it appears to the outsider

c. Professional teachers play an important part in making democracy work

d. The young person interested in a professional career must be guided not so much by the reputation of the profession itself as by his own qualifications for it

e. Many parents would like their children to become organized knowledge workers

f. Specialization in the medical field

B. Written Work

1. Any topic under A that you would prefer to do in writing.

2. Prepare an article on some topic concerned with organized knowledge work for your local or school newspaper. Such topics as the following might be suitable:

a. An outstanding organized knowledge worker in our community

b. A graduate of our school who has been successful in college or as an organized knowledge worker

c. A hobby that might indicate an interest in organized knowledge work

3. Take a poll to find out how many pupils in our school are interested in careers in organized knowledge work, the types of work they are interested in, and where they plan to further their education. You might prepare a report of your findings for the school or local paper.

4. Make a survey of the opportunities for organized knowledge workers in our community.

5. Prepare a list of books on organized knowledge workers that you think would make valuable additions to our school or town library. If you care to, you might discuss your findings with the school or town librarian.

6. Prepare an imaginary report of

a. Your graduation from college

b. Your first day as an organized knowledge worker

c. The day you passed your state examination

d. Some other topic that you might care to suggest

7. Prepare an imaginary diary of some type of organized knowledge worker.

8. Write a letter

a. To an organized knowledge worker who might be interested in giving you information about his work

b. To a friend or relation at college, inquiring about college life

c. To a school or college that offers training in a field of organized knowledge work that particularly interests you

9. Get copies of catalogs from schools and colleges that offer training in a field of organized knowledge work that particularly interests you. Estimate the cost of securing the necessary education and/or training. Prepare a budget for a freshman at one of the colleges that interests you.

10. Make a list of the types of part-time work that you might secure that would help you to earn money for your education and, at the same time, be in keeping with your vocational interests.

11. Make a list of scholarships that are offered in the particular field that interests you and the requirements for securing them.

12. Write a poem or song about organized knowledge work or workers.

C. Drawing

1. Draw a picture, cartoon, or poster illustrating some facts about organized knowledge work or workers, such as:

a. Organized knowledge workers must have the capacity to acquire and apply specialized knowledge

b. The organized knowledge group may be divided into public service, technical, and managerial workers

c. The public service group may be divided into instructive, social, and protective service workers

d. Teaching is not as easy as it appears to the outsider

e. There is an increasing need for teachers in educational agencies outside the schools

f. The medical profession requires from seven to nine years' study beyond high school

g. There is much specialization in the medical field

h. There are two types of nursing schools

i. State laws require licenses in many of the organized knowledge fields

j. Law is a highly competitive profession

k. The engineer's work requires the ability to think in terms of numbers.

2. Draw a picture of some phase of organized knowledge work that particularly interests you.

3. Design a suitable cover for the written material that you are passing in with this unit.

D. Charts, graphs, maps, photographs

1. Make a chart or graph showing the percentage of the working people in our community, state, and nation who are engaged in organized knowledge work.

2. Make a chart showing how you depend on organized knowledge workers and they depend on you.

3. Make a map of our community and indicate areas in which organized knowledge workers are employed.

4. Collect photographs of organized knowledge workers at work. We might arrange an interesting bulletin board display showing members of our class dressed as or performing tasks of organized knowledge workers.

5. Make a chart, map, or graph illustrating any interesting facts about organized knowledge workers. You might enjoy making a chart that is wired to an electric bell. This type of chart usually contains material that is set up similar to the matching questions that we have on tests. If you match the correct question and answer, the bell will ring. The teacher will be glad to help any person or persons interested in making such a chart.

E. Collections and Exhibits

1. See D. 4 above.

2. Make a collection of pictures illustrating:

   a. Changes in organized knowledge work

   b. Famous organized knowledge workers

   c. Types of organized knowledge work

   d. Other information concerning this group that may be shown by a series of pictures

3. Volunteer to be a member of the bulletin board committee. See special study guide--Suggestions for Bulletin Board Displays.

4. Build a model or diorama illustrating some phase of organized knowledge work.

5. Make a collection of songs and/or poems about organized knowledge work or workers.

6. Dress dolls as organized knowledge workers.

F. Field Trips

1. Plan a trip for the class, a small group, or an individual to:

   a. A hospital

   b. A college

c. A social service agency

d. A protective service agency

e. A large engineering project

2. All field trips should be carefully planned in advance. If you would like to plan a field trip, fill in all of the information called for on the special study guide and get the teacher's approval of your plans.

G. Club and organizational activities

1. If you are a member of the boy or girl scouts, 4-H, or other organizations, look up the merit badges or awards that may be earned by performing activities of the type done by organized knowledge workers. If you are interested, you might make plans for earning these awards while we are studying this unit.

2. What clubs and organizations in our school give training of the type needed for organized knowledge work? What clubs and organizations in the local high school would give such training? How does one become a member of these clubs and organizations? Make a list of any activities that you think might make our clubs more valuable in this respect.

H. Additional committee work

1. Volunteer to be a member of the library committee. See special study guide.

2. Volunteer to be a member of the planning committee. This committee will select the best of the optional related activities completed in connection with this unit and program them for presentation to the class.

Bibliography for Pupils

Books

Avison, George, UNCLE SAM'S ARMY: HOW IT FIGHTS. New York: The Macmillan Co, 1943. 40 p., illus. $1.
A brief description of twenty-three specialists in the army written for young boys.

Bell, Kensil, COAST GUARD CADETS. New York: Dodd, Mead and Co., Inc., 1941. 232 p. $2.
Fiction. Adventures of a boy at the U. S. Coast Guard Academy, New London, Conn.; a real picture of the life and training at the academy.

Bell, Kensil, ICE PATROL. New York: Dodd, Mead and Co., Inc., 1937. 262 p. $2.
Fiction. Adventures of a rookie seaman with the U. S. Coast Guard in the North Atlantic; mostly founded on fact.

Brown, Esther L., SOCIAL WORK AS A PROFESSION. New York: Russell Sage Foundation, 1938. 118 p. $.75.
A discussion of social work.

Carlisle, Norman V. and Curtis L. Erickson, CIVIL SERVICE CAREERS FOR BOYS. New York: E. P. Dutton and Co., Inc., 1941. 202p. $2.
The story of two high school boys who go to Washington to gather information on civil service positions. Includes several organized knowledge positions.

Carlisle, Norman V. and Doris McFerran, CIVIL SERVICE CAREERS FOR GIRLS. New York: E. P. Dutton and Co., Inc., 1941. 202 p. $2.
A story in conversational style about two girls and their investigations of civil service positions.

Carlisle, Norman V., MARINES IN REVIEW. New York: E. P. Dutton and Co., Inc., 1943. 192 p. $2.50.
Describes: Marines in action, the making of a marine, the marine officer, arms and equipment, specialization, and several other phases of the work.

Chandler, Caroline, SUSIE STEWART, M. D. New York: Dodd, Mead and Co., Inc., 1941. 232 p. $2.
The adventures of a young woman doctor who, after studying medicine with a class of forty men at Yale, worked on ambulances and in hospital wards.

Cobb, Meta and Holland Hudson, JOAN CHOOSES OCCUPATIONAL THERAPY. New York: Dodd, Mead and Company, Inc., 1944. 214p. $2.
Fiction. The story of a girl who trains at a school of occupational therapy where she learns crafts and their medical application.

Couth, Herbert, SO YOU WANT TO BE A CHEMIST. New York: McGraw-Hill Book Co., Inc., 1943. 128 p. $1.50.
Discussion for young people of the kinds of work done on the job.

Deming, Dorothy, GINGER LEE--WAR NURSE. New York: Dodd, Mead and Co., Inc., 1942. 227 p. $2.
Fiction. Story of an Army nurse, with factual information on professional procedure.

Deming, Dorothy, PENNY AND PAM; NURSE AND CADET. New York: Dodd and Mead Co., Inc., 1944. 230 p. $2.
Fiction. Description of nursing from east to west.

Deming, Dorothy, PENNY MARSH, PUBLIC HEALTH NURSE. New Yotk: Dodd, Mead and Co., Inc., 1938. 266 p. $2.
Fiction. Story of a public health nurse.

Erickson, Curtis, ARMY IN REVIEW. New York: E. P. Dutton and Co., Inc., 1943. (Revised) 218 p. $2.50.
Story of two boys viewing a rmy life. For prospective soldiers, now teen-age.

Fishbein, Morris, DO YOU WANT TO BECOME A DOCTOR? New York: F. A. Stokes Co., 1939. 176 p. $1.50.
Factual information assembled by the Council on Medical Education and the Hospitals of the American Medical Association.

Floherty, John J., COURAGE AND THE GLORY. Philadelphia: J. B. Lippincott Co., 1942. 190 p. $2.25.
Stories of courageous men.

Floherty, John J., INSIDE THE F. B. I. Philadelphia: J. B. Lippincott Co., 1943. 192 p. $3.
A true story of the Federal Bureau of Investigation covering many types of work.

Gaer, Joseph, FAIR AND WARMER. New York: Harcourt, Brace and Co., Inc., 1941. 137 p. $1.
A discussion of the problems of weather forecasting and the work of t he U. S. Weather Bureau.

Gardiner, Frederic Merrick, DYNAMITE DUNCAN, USN. New York: Dodd, Mead and Co., Inc., 1944. 258 p. $2.
Fiction. A career story of a naval officer.

Ham, Arthur W. and M. D. Salter, DOCTOR IN THE MAKING. Philadelphia: J. B. Lippincott Co., 1943. 179 p. $2.
Deals with the motives and mental equipment necessary for success as a medical student.

Johnson, Martha, ANN BARTLETT, NAVY NURSE. New York: The Thomas Y. Crowell Co., 1941. 321 p. $2.
A novel about nursing.

Kitson, Harry D. and Mary R. Lingenfelter, VOCATIONS FOR BOYS. New York: Harcourt, Brace and Co., Inc., 1942. 332 p. $2.50.
A text on occupations --many in the organized knowledge group.

Kitson, Harry D. and Mary R. Lingenfelter, VOCATIONS FOR GIRLS. New York: Harcourt, Brace and Co., Inc., 1939. 358 p. $2.50.
Presents a picture of women's place in the occupational world and aims to help young women obtain a knowledge of occupations open to them.

Klinefelter, Lee M. MEDICAL OCCUPATIONS AVAILABLE TO BOYS WHEN THEY GROW UP. New York: E. P. Dutton and Co., Inc., 1938. 287 p. $2.
Effort is made to tell about all the healing arts that are based upon accepted scientific principles. Conversational style.

Klinefelter, Lee M., MEDICAL OCCUPATIONS FOR GIRLS. New York: E. P. Dutton and Co., Inc., 1939. 320 p. $2.
Useful information for the girl who is considering any of the medical professions.

Maule, Frances, CAREERS FOR THE HOME ECONOMISTS. New York: Funk and Wagnalls Co., 1943. 250 p. $2.
Opportunities for the girl with modern training in the homemaking arts.

Perry, Josephine, CHEMICAL INDUSTRY. New York: Longmans, Green and Co., Inc., 1944. 128 p. illus. $1.75.
Written in easy style for young people.

Steele, Evelyn, CAREERS FOR GIRLS IN SCIENCE AND ENGINEERING. New York: E. P. Dutton and Co., Inc., 1943. 189 p. $2.50.
Discussion of occupations for women in scientific work.

Steele, Evelyn, and H. K. Blatt, CAREERS IN SOCIAL SERVICE. New York: E. P. Dutton and Co., Inc., 1946. 256 p. $2.75.
Description of the various types of social service work.

Sutherland, Dorothy, SO YOU WANT TO BE A NURSE. New York: Doubleday, Doran and Co., 1942. 186 p. $2.
Describes duties of a nurse.

Sutton, Margaret, GAIL GARDNER WINS HER CAP. New York: Dodd, Mead and Co., Inc., 1944. 243 p. $2.
Fiction. Story of a U. S. Cadet Nurse.

Turner, Mary Ellis, KAREN LONG, MEDICAL TECHNICIAN. New York: Dodd, Mead and Co., Inc., 1943. 211 p. $2.
The story of a girls who spends a year after college in a hospital laboratory as a medical technician.

Yost, Edna, AMERICAN WOMEN OF SCIENCE. Philadelphia: F. A. Stokes Co., 1943. 232 p. $2. Biographies of twelve women in science.

Monographs

American Job Series Guidance Monographs. Chicago: Science Research Associates. $.60 each.

Darley, John G. and Ralph F. Berdie, THE FIELD OF PERSONNEL WORK. 1945.
Gould, Adrian G., CAREERS IN PUBLIC HEALTH. 1943.
Houle, Cyril O. TEACHING AS A CAREER. 1946.
Peterson, Florence, CAREERS IN LABOR RELATIONS. 1943.
Stewart, Lowell O., A CAREER IN ENGINEERING. 1942.

Careers Research Monographs. Chicago: Institute for Research.
Seventy-eight published monographs on careers in organized knowledge work. Statistics out of date but contain much valuable material.

Pamphlets

Adams, O. D., TRAINING FOR THE POLICE FORCE. Washington: U. S. Government Printing Office, 1938. 84 p. 15¢.
Problems, organization, and operation of police training programs.

Evans, Eva Knox, SO YOU'RE GOING TO TEACH. Chicago: The Julius Rosenwald Fund, 1943. 51 p. 25¢.
Entertaining and illustrated booklet of advice to those who teach or plan to teach.

NURSING AND HOW TO PREPARE FOR IT. Nursing Information Bureau of the American Nurses' Association, New York; 1942. 23 p. free.
Nursing as a career is described.

Suggested Audio-Visual Aids

Films

ENGINEERING. 11 min., 16 mm. sound, $50, 1942. Vocational Guidance Films, Inc. (In many film libraries)

One of the vocational guidance film series especially prepared for ninth-grade guidance classes, home rooms, or group meetings such as the PTA. It shows the work being done in the various engineering field. The material is well organized and presented.

INSIDE THE FEDERAL BUREAU OF INVESTIGATION. 10 min., Sound, rental $1.50. Teaching Film Custodians, Inc.

A comprehensive insight into the F. B. I. A very interesting sequence deals with the training of G-men.

LET'S GO TO BOSTON UNIVERSITY. 30 min., sound, (May be borrowed from Boston University)

Shows campus life at a large university and the types of training offered by the various departments of the university.

NURSING. 11 min., 16 mm. sound, $50, 1942. Vocational Guidance Films, Inc. (In many film libraries)

Shows nurse at work in many different fields. Detailed analysis of the qualifications and requirements necessary for success in nursing. Material well organized and presented.

Film Strip

Vocational Guidance Films, Inc., 2718 Beaver Ave., DesMoines, Iowa.

Group I, Number 2: Professional and Managerial Occupations

Sources of Free and Inexpensive Materials *

Accounting

Bentley School of Accounting and Finance
921 Boylston Street
Boston, Mass.

International Accountants Society, Inc.
3411 S. Michigan Ave.
Chicago 16, Ill.

Pace Institute
225 Broadway
New York, N. Y.

Advertising and Public Relations

Mark O'Dea
400 Madison Ave.
New York, N, Y.

Air Transportation

Air-Age Educa tion Research
100 E. Forty-second St.
New York 17, N. Y.

American Airlines, Inc.
100 E. Forty-second Street
New York 17, N. Y.

Delta Air Corporation
Public Relations Department
Municipal Airport
Atlanta, Ga.

United Air Lines, Inc.
School and College Service
23 E. Monroe St.
Chicago 3, Ill.

U. S. Civil Aeronautics Administration
Department of Commerce
Washington 25, D. C.

Zeeland Record Company
Zeeland, Michigan

* Yale, John R., HOW TO BUILD AN OCCUPATIONAL INFORMATION LIBRARY. (Revised Edition), Chicago: Science Research Associates, 1946, pp. 63-76.

Animal Husbandry

American Veterinary Medical Association
600 S. Michigan Ave.
Chicago 5, Ill.

Architecture and Drafting

American Institute of Architects
The Octagon
1741 New York Ave., N. W.
Washington 6, D. C.

Armed Forces

U. S. Coast Guard
Washington, D. C.

U. S. Navy Department
Office of Public Relations
Washington, D. C.

U. S. War Department
Bureau of Public Relations
Washington, D. C.

Business and Management

American Management Association
330 W. Forty-second St.
New York 18, N. Y.

Association of Business Institutes of the State of New York
225 Broadway
New York 7, N. Y.

Chicago Better Business Bureau
7 S. Dearborn St.
Chicago 3, Ill.

Federation Employment Service
67 W. Forty-seventh St.
New York, N. Y.

National Board of YWCA
600 Lexington Ave.
New York, N. Y.

New York University
School of Commerce, Accounts, and Finance
Washington Sq.
New York 3, N. Y.

Chemistry

American Chemical Society
1155 Sixteenth St., N. W.
Washington 6, D. C.

American Institute of Chemists
60 E. Forty-second St.
New York 17, N. Y.

The Chemical Bulletin
305 N. Michigan Ave.
Chicago 1, Ill.

Education

Easton High School
Department of Education
Easton, Pa.

Julius Rosenwald Fund
4901 Ellis Ave.
Chicago 15, Ill.

Missouri State Teachers Association
Policy and Plans Committee
Columbia, Mo.

National Education Association
1201 Sixteenth St., N. W.
Washington 6, D. C.

Ohio State Department of Education
Columbus
Ohio

Phi Delta Kappa
2034 Ridge Road
Homewood, Ill.

Engineering

American Institute of Electrical Engineers
33 W. Thirty-ninth St.
New York 18, N. Y.

American Institute of Mining and Metallurgical Engineers
29 W. Thirty-ninth Street
New York, N. Y.

American Society of Agricultural Engineers
St. Joseph
Mo.

American Society of Civil Engineers
33 W. Thirty-ninth Street
New York 18, N. Y.

Engineers' Council for Professional Development
29 W. Thirty-ninth St.
New York 18, N. Y.

Iowa State College Press
Ames
Iowa

Government and Public Service

National Probation Association, Inc.
1790 Broadway
New York 19, N. Y.

Public Administration Service
Publication Division
1313 E. Sixtieth St.
Chicago 37, Ill.

Social Science Research Council
261 Broadway
New York, N. Y.

U. S. Civil Service Commission
Washington 25, D. C.

U. S. Department of State
Washington, D. C.

U. S. Federal Bureau of Investigation
Department of Justice
Washington, D. C.

Health

American Council on Pharmaceutical Education
32 S. Green St.
Baltimore 1, Md.

American Dental Association
Council on Dental Education
222 E. Superior St.
Chicago 11, Ill.

American Dental Hygienists' Association
1704 N. Troy St.
Apt. 824
Arlington, Va.

American Hospital Association
18 E. Division St.
Chicago 11, Ill.

American Medical Association
535 N. Dearborn St.
Chicago 10, Ill.

American Nurses Association
Nursing Information Bureau
1790 Broadway
New York 19, N. Y.

American Optometric Association, Inc.
707 Jenkins Building
Pittsburgh 22, Pa.

American Osteopathic Association
139 N. Clark St.
Chicago 2, Ill.

American Pharmaceutical Association
2215 Constitution Ave.
Washington 7, D. C.

American Physiotherapy Association
1700 Broadway
New York 19, N. Y.

American Public Health Association
1790 Broadway
New York 19, N. Y.

American Registry of X-Ray Technicians
c/o Alfred B. Greene
Executive Secretary
2909 Raleigh Ave.
Minneapolis 16, Minn.

National Association for Practical Nurse Education
250 West Fifty-seventh St.
New York 19, N. Y.

National Organization for Public Health Nursing
1790 Broadway
New York 19, N. Y.

National Pharmacy Committee on Public Information, Inc.
Rockefeller Center
620 Fifth Ave.
New York 20, N. Y.

Registry of Medical Technologists
American Society of Clinical Pathologists
234 Metropolitan Building
Denver, Colo.

U. S. Public Health Service
Washington, D. C.

Home Economics

American Dietetic Association
620 N. Michigan Ave.
Chicago 11, Ill.

American Home Economics Association
620 Mills Building
Washington 6, D. C.

Burgess Publishing Company
426 S. Sixth Ave.
Minneapolis, Minn.

Language

National Federation of Modern Language Teachers
284 Hoyt St.
Buffalo 13, N. Y.

Law

American Bar Association
1140 N. Dearborn St.
Chicago 10, Ill.

LaSalle Extension University
417 S. Dearborn St.
Chicago 5, Ill.

Library Work

American Library Association
520 N. Michigan Ave.
Chicago 11, Ill.

New York Library Association
c/o Irene Smith
Brooklyn Public Library
Grand Army Plaza
Brooklyn 17, N. Y.

Special Libraries Association
31 E. Tenth Street
New York 3, N. Y.

Personnel Work

Metropolitan Life Insurance Company
Policyholders Service Bureau
1 Madison Ave.
New York 10, N. Y.

Princeton University
Industrial Relations Section
Princeton, N. J.

Recreation

National Recreation Association
315 Fourth Ave.
New York 10, New York

Science

Science Clubs of America
Science Service
1719 N. St., N. W.
Washington 6, D. C.

U. S. Weather Bureau
Department of Commerce
Washington, D. C.

Social Science

American Statistical Association
1603 K St., N.W.
Washington 6, D. C.

Social Service

American Association of Schools of Social Work
1313 E. Sixtieth St.
Chicago 37, Ill.

American Association of Social Workers
130 E. Twenty-second St.
New York 10, N. Y.

Association Press
247 Madison Ave.
New York 17, N. Y.

Boys Clubs of America
381 Fourth Ave.
New York 16, N. Y.

Family Welfare Association of America
122 E. Twenty-second St.
New York 10, N. Y.

National Tuberculosis Association
1790 Broadway
New York 19, N. Y.

CHAPTER IV

THE SERVICE GROUP

General Statement of the Unit[49]

The service group is composed of workers who minister to the needs of others in preparing food, serving meals, caring for children, and in other types of personal service activities.[50] Workers in this field render service of one kind or another, rather than creating goods or materials. Most of the jobs in this group require only a few special abilities and little or no special education.

Delimitation of the Unit[51]

1. Service workers may be divided into three types:[52]

   a. Cooking

   b. Child care

   c. Personal service

2. The cooking group is composed of workers who prepare, handle, or cook food in private homes or in public eating places.[53]

3. The child care group includes those whose work is concerned with the care, amusement, or proper development of children.[54]

4. The personal service group includes those persons whose work involves

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49. Billett, Op. Cit., p. 505.
50. War Manpower Commission, Op. Cit., p. 13.
51. Billett, Op. Cit., p. 508.
52. War Manpower Commission, Op. Cit., p. 49.
53. Ibid., p. 49.
54. Ibid., p. 49.

attending to the needs and desires of others as regards their comfort, convenience, health, food service, appearance, or cleanliness.[55]

5. The personal service group may be further divided into:[56]

a. Food service and related workers

b. Adult care

c. Miscellaneous personal service work

6. Food service and related workers are those whose work involves the serving of food or drinks, the setting of tables and the removal of dishes.[57]

7. Adult care calls for care of, or service to, the personal or social needs or appearance of others. The work involves close personal contact and may require special training or licensing.[58]

8. Miscellaneous personal service work involves attending to the needs of others as regards their clothing, conveyance, luggage, or cleanliness of surroundings.[59]

9. Persons interested in cooking should possess such traits as:[60]

a. Ability to read and follow recipes

b. Judgment and accuracy in mixing ingredients

c. Ability to organize work and plan or time operations

d. Memory for detail

e. Willingness to work in a service environment

f. Cleanliness, respect for sanitary regulations

g. Good health, freedom from communicable diseases

h. Manual dexterity

i. Good sensory perception in judging flavor and readiness of foods by smell, taste, or appearance

55. War Manpower Commission, Op. Cit., p. 49.
56. Ibid., p. 49.
57. Ibid., p. 49.
58. Ibid., p. 49.
59. Ibid., p. 49.
60. Ibid., p. 162.

10. Possession of the traits desirable in cooking may be estimated from:[61]

a. Cooking activities in the home

b. Performance in school courses

11. Persons interested in child care should have such traits as:[62]

a. Liking for children

b. Dependability

c. Emotional control

d. Good health, freedom from communicable diseases

e. Cleanliness

f. Resourcefulness

g. Patience

12. Possession of the traits desirable in child care may be estimated from:[63]

a. General acceptance of domestic responsibilities

b. Casual work experience in taking care of children

13. Persons interested in personal service work should possess such traits as:[64]

a. Willingness to work in a service capacity

b. Cleanliness, good health, freedom from communicable diseases

c. Cheerful disposition

d. Ability to follow directions

e. Alertness to the wishes and needs of others

f. Courtesy

14. Most of the service jobs require only a few special abilities and little or no special education.

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61. War Manpower Commission, Op. Cit., p. 162.
62. Ibid., p. 162.
63. Ibid., p. 162.
64. Ibid., p. 162.

15. Possession of the traits desirable for personal service work may be estimated from:[65]

a. Observation of the individual

b. Achievement in training courses

c. Casual work experience

16. Service occupations offer excellent job opportunities for young people who cannot afford the time or expense of long educational preparation or who want to get started in work right away.

17. Many of the service jobs can be mastered through training on the job by a foreman or fellow worker.

18. There is a long range trend toward a great increase in service occupations.

19. This increase in the number of service occupations is due partly to:

a. Increased efficiency and mechanization of industry

b. Increase in leisure time

20. There are many openings in private homes for competent domestic workers.

21. Household employment is just about the last possibility considered when careers are discussed.

22. New dignity must be brought to the field of domestic service.

23. There is a need for domestic service training schools that will interest those who seek employment in this field.

24. Private domestic service is usually an occupation for the very young and the relatively older white women, and for negro women of all ages.

25. Larger numbers of white girls under twenty take jobs in private homes than in any other field of employment.

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65. War Manpower Commission, Op. Cit., p. 162.

26. The great majority of workers in domestic service are women.

27. There are many jobs that men can do better than women. The most common household occupations for men are those of:

a. Butler

b. Chauffeur

c. Chef

d. Cook

e. Furnace man

f. Gardener

g. General utility man

h. Houseman

i. Male nurse

j. Stable man

k. Valet

l. Tutor

m. Yardman

28. Sometimes a man and wife are employed to do a whole series of household jobs.

29. Some of the disadvantages of household work are:

a. Long hours

b. Low pay

c. Isolation from family and friends

d. Lack of legislative protection

e. Unsatisfactory living accommodations

30. Some of the advantages are:

a. Physical surroundings usually pleasant and attractive

b. Work is more diversified and presents more opportunity for exercising creative faculties

31. Hotel work offers attractive employment to men and women of many different interests.

32. The two departments of the hotel that employ many service workers are

a. The housekeeping department

b. The service department

33. If the hotel serves meals, there will be a large group of food workers who are also classified as service workers.

34. The housekeeping department is responsible for the cleaning and maintenance of all the rooms in the hotel.

35. The housekeeping department is usually headed by a woman known as the housekeeper.

36. Under the housekeeper are

a. Assistant housekeepers who may help the housekeeper in a general way or assume responsibility for a certain floor or area

b. Linen room girl who counts and checks all hotel linens

c. Seamstresses who keep linens in repair

d. Housemen who wash windows, build fires, and perform other handyman tasks about the hotel

e. Painters and upholsterers

37. The service department includes all persons who perform personal services for guests. This group includes:

a. The hostess who creates a homelike atmosphere and helps to arrange social functions

b. The house detective who protects the safety of the guests and the property

c. The uniformed services which include:

(1) The superintendent of services

(2) Doormen

(3) Garage attendants

(4) Bell Captain who has charge of the bell boys

(5) Bell boys who carry guests' luggage and see that they are comfortable

38. The preparation and serving of food is one of the basic vocations because food is so important to mankind.

39. More than a million cooks, waiters and waitresses prepare and serve the food consumed everyday in the restaurants, cafeterias and other eating places.

40. There are more women than men employed in the food trades although some of the larger hotels and restaurants usually employ men to cook and serve food.

41. The work of those engaged in food trades varies with the size and type of establishment.

a. In a large establishment each course in the meal may be prepared by a special cook and his assistants

b. In a small establishment one cook may prepare the entire meal

42. Some of the more or less specialized occupations in the food trades are

a. The short-order cook who prepares (and sometimes serves) cereals, waffles, toast, eggs, and many kinds of fried foods

b. Pantry service workers

c. Salad making workers

d. Sandwich making workers

43. Working conditions in the food trades are uniformly good.

44. The daily contact of waiters and waitresses with the general public tends to make the work enjoyable.

45. To be successful, a waiter or waitress must possess an adequate

knowledge of many kinds of foods, condiments, sauces, and beverages as well as skill in carrying of dishes and serving.

46. Employment is not seasonal in the food trades, but many workers find it profitable to work in the south during the winter and at shore and mountain resorts during the summer.

47. Earnings of workers in the food trades vary with the location, size, and type of their place of employment. Salaries usually range somewhat as follows:

a. Chefs from $45 to $125 per week plus meals and sometimes lodging

b. Cooks from $21 to $40 per week plus meals

c. Waiters and waitresses average $15 to $25 per week including tips received from satisfied patrons

48. A good future seems assured for this vocation because

a. People must eat to live

b. The custom of eating in places that make a business of serving food is becoming more popular

49. Many employers require little in the way of formal education; most of them prefer to employ as food workers young people who have attended high school or have received the benefit of modern vocational training.

50. Efficient food workers receive every consideration from their employers because upon the results of these employees' efforts depends the health and good will of the customer and the success of the business.

51. Skill is essential for permanence of employment in any of the occupations in the food trades.

52. Beauty culture is a field that offers special opportunities to girls.

53. The demand for female beauty operators far exceeds that for male.

54. The work of the beautician involves the making of those she serves more pleasing in appearance.

55. Working conditions are, as a rule, very satisfactory in the field of beauty culture. Most beauty parlors are well-lighted, clean, and attractive.

56. Time and hours of work vary with the season, location of the shop, and legislative regulations in effect.

57. Earnings in beauty culture vary greatly in different sections of the country, but there is a pronounced trend toward their improvement in all sections. A skilled operator usually earns from $25 to $40 a week.

58. There seems to be room for substantial growth and development in beauty culture.

59. The hazards to both operator and client are few in number, but they can be serious in nature.

60. The qualifications for successful workers in beauty culture are

a. Manual skill

b. Some knowledge of anatomy, cosmetic chemistry, bacteriology, physiology, and hygiene

c. Good conversational English

d. Familiarity with the principles of trade ethics and shop management

61. The social standing of the beautician ranks well when it is compared with that of other vocations.

62. In most states, beauticians and barbers must have a state license.

63. To get his state license, the barber must:

a. Pass a medical examination to prove he is free from communicable disease

b. Provide satisfactory evidence as to his moral character and habits

c. Convince the board of examiners that he has mastered the technique of hair cutting and other shop services.

d. Pass a written examination

64. There are many barber schools now in operation and the better ones are endorsed by the National Educational Council of the American Master Barbers Association.

65. To qualify for one of the better barber schools, an applicant must:

a. Be over sixteen years of age

b. Be of good moral character

c. Have a grammar school education or better

66. These better barber schools usually offer a six months course including one thousand hours of class attendance and a lecture by a registered medical doctor at least once a week.

67. After graduation from barber school, a student serves as an apprentice for one and one-half years before becoming a journeyman barber.

68. A start has been made toward including barber training as a regular function of state and local education departments.

69. Another type of service work that requires a state license is embalming.

70. The funeral director is the person who directs or conducts the funeral. He may or may not be an embalmer.

A. Introductory Activities

1. The class might be organized as a hotel; and the hotel manager and assistant managers could plan some activity, such as a supper for the students' parents, which will give the students an opportunity to perform service work. In carrying out such an activity, the class might be divided into a housekeeping department and a service department with various students serving as the following types of workers:

A. In the housekeeping department
   1. Housekeeper
   2. Assistant housekeepers
   3. Maids
   4. Linen room girl
   5. Housemen

B. In the service department
   1. Hostess
   2. House detective
   3. Uniformed Service workers
      a. Doormen
      b. Bell captain
      c. Bell boys
   4. Dining room workers
      a. Headwaiter
      b. Waiters and waitresses
      c. Bus boys
   5. Kitchen workers
      a. Chef

b. Cooks

c. Pantry helpers

d. Baker

e. Dishwashers

Such an activity as the one described above requires a great deal of planning on the part of the teacher before it is presented to the class. However, the enthusiasm with which it is received and the direct and incidental learning products make it well worth the time and effort. (Much etiquette might be taught in connection with such an activity.)

2. Show either of the following film strips and discuss it with the class. (The author was unable to locate any satisfactory films on service workers.)

Service Occupations

Hotel Occupations

These film strips, with accompanying student manuals may be procured from

Vocational Guidance Films, Inc.
2718 Beaver Ave.
Des Moines, Iowa

3. Take the class on a trip to the high school home economics department.

4. If the class has been working on an occupational survey of the community in connection with the study of occupations, a group discussion concerning the service workers in the community might be held and a committee appointed to enterthe markers indicating where service workers are employed in the community. (For suggestions on making such an occupational survey, see Appendix A.)

B. For Individual Study and Investigation

1. Name the three types of service work and describe the nature of each.

2. List the traits that you think all service workers should have and check those that you think that you possess. You might like to make a rating scale and rate yourself on each of the traits listed.

3. List any special traits that you think are important for specific groups of service workers and rate yourself on these additional traits.

4. Write a composition telling why you do or do not think you would be happy and successful as a service worker. If you have had experience as a service worker, you might tell how that has affected your attitude toward or interest in service work.

5. Make a list of the ways in which service workers contribute to the life of our community.

6. Select one person whom you consider a successful service worker. Describe his work, his status in the community, and the personal qualities that you think have helped to make him a success.

7. About what per cent of the working people in our community are service workers? How does this figure compare with that for the country as a whole?

8. What types of service workers do we have in our community? Can you think of any types of service workers that we do not have but need in our community?

9. List the advantages and disadvantages of service work.

10. What are the educational and/or training requirements for service workers, and where may the education and/or training be acquired?

11. How may a young person get started in service work?

Optional Related Activities

A. Oral Work

1. Prepare an oral report on one of the following topics or on some topic that you might care to suggest. If you use a topic other than those on this list, get the teacher's approval. If possible, find pictures to illustrate your talk and use the opaque projector. A member of the visual aids committee will be glad to help you set up the machine and show you how to use it.

   a. Unusual occupations in the service group
   b. Value of education and special training for service work
   c. Opportunities for young people in service work
   d. Part-time jobs in service work
   e. Service occupations that require licensing
   f. Requirements for service occupations' licenses in Massachusetts
   g. Motion pictures that show service workers

2. Present a panel discussion on one of the following topics or one you might care to suggest. Get the teacher's approval of topics other than those listed.

   a. Needed legislation for domestic workers
   b. How we can bring new dignity to service occupations
   c. Our dependence upon service workers and their dependence upon us
   d. Opportunities for service workers in our community
   e. Opportunities for young people in service work

3. Report on one of the following:

   a. An interview with a worker in the service field. (If you are interested in this activity, prepare a series of questions that

you plan to ask this worker and get the teacher's approval. Make an appointment for the interview well ahead of time.)

b. A trip to a place where service workers are on the job

4. Prepare a debate on some controversial topic related to service work or workers. If you are interested in this activity, the teacher will be glad to discuss details with a committee of volunteers.

5. Prepare a radio talk on one of the topics listed in 1-3 above or on some topic that you may care to suggest. Be sure to get the teacher's approval of topics other than those listed. You might like to deliver your talk over the school's public address system or record it on the school's recording machine and play it back to the class.

6. Conduct a junior town meeting and discuss some of the real problems of service workers in our community. If you are interested in this activity, the teacher will be glad to discuss details with a committee of volunteers.

7. Prepare and present a skit giving information about service work, such as

a. Value of education and training in service work

b. Our dependence upon service workers

c. Opportunities for young people in service work

d. Changes in service work

e. The beautician's work involves the making of those she serves more pleasing in appearance

B. Written reports

1. Any topic under A that you would prefer to do in writing.

2. Prepare an article for your school or local newspaper on some topic related to service work or workers. Such topics as the following might be suitable:

a. An outstanding service worker in our community

b. A graduate of our school who has become successful as a service worker

c. Report of a survey of

(1) Opportunities for part- or full-time employment as service workers in our community

(2) Percentage of graduates of our school who have gone into service work

d. A hobby that might develop into a vocation in the service field

e. Service workers that our community needs and does not have

3. Take a poll to find out how many of the pupils in our school are interested in careers in service work.

4. Make a survey of opportunities for service workers in our community.

5. Prepare a list of books on service workers that you think would make valuable additions to our school or town library. If you care to, you might discuss your findings with the school or town librarian.

6. Prepare an imaginary report of

a. Hotel employee's strike

b. Results of careless work by a service worker

c. Your first day as a service worker

7. Prepare an imaginary diary for a service worker. If you do any part-time service work, keep a real diary of your own work experience.

8. Write a letter

a. To a service worker who might be interested in giving you information about his work

b. To a school that gives training in service work

c. Telling a friend about your experiences as a part-time service worker

9. Write a poem about service work or workers.

10. Write a song about service work or workers.

C. Drawing

1. Draw a picture, cartoon, or poster illustrating some facts about service work or workers, such as:

a. Service workers' contributions to society

b. Incomes in service work vary

c. Training for service workers pays dividends

d. There are three types of service work: cooking, child care, and personal service

2. Draw a picture illustrating some phase of service work that particularly interests you.

3. Design a suitable cover for the written material that you are passing in with this unit.

D. Charts, graphs, maps, photographs

1. Make a graph showing the percentage of the working people in our community, state, and nation who are employed in service occupations.

2. Make a chart showing how you depend on service workers and how they depend on you.

3. Make a map of our community and show where service workers are employed.

4. Collect photographs of service workers at work. We might arrange an interesting display of photographs showing members of our class performing service tasks.

5. Make a chart, graph, or map illustrating any interesting facts concerning service work or workers. You might enjoy making a chart that is wired to an electric bell. This type of chart usually contains material that may be set up similar to the matching questions that we have on tests. If you match the correct question and answer, the bell will ring. If you are interested in making such a chart, the teacher will be glad to help you.

E. Collections and exhibits

1. See D. 4 above.

2. Make a collection of pictures which show changes in service work, types of service work, or some other factors about this field that might be well illustrated by a series of pictures.

3. Volunteer to be a member of the bulletin board committee. See the special study guide--Suggestions for Bulletin Board Displays.

4. Build a model or diorama illustrating some phase of service work.

5. Make a collection of songs and/or poems about service work or workers.

6. Dress dolls as service workers.

F. Field trips

1. Plan a trip for the class, a small group, or an individual to :

a. A hotel

b. A public eating place

c. A barber or beaty culture school

d. Local vocational school

e. High school vocational classes

2. All field trips should be carefully planned in advance. If you would like to plan a field trip, fill in all the information called for on the special study guide and get the teacher's approval.

G. Club and organizational activities

1. If you are a member of the boy or girl scouts, 4-H, or other organizations, look up the merit badges or other awards that might be earned for activities of the type performed by service workers. If you are interested, you might make plans for earning these awards while we are working on this unit.

2. If you are a member of a school club that performs activities similar to those of service workers, you might like to arrange a program showing the

activities of your club.

3. Perhaps you would like to plan a social activity that would give you an opportunity to perform service work. One suggestion might be a supper for your parents. What types of service workers would we need? If you are interested in this or a similar activity, the teacher will be glad to discuss details with a committee of volunteers.

H. Additional committee work

1. Volunteer to be a member of the library committee. See special study guide--Library Committee Suggestions.

2. Volunteer to be a member of the planning committee. This committee will select the best of the related optional activities and program them for presentation to the class.

Bibliography for Pupils

Books

Bemelmans, Ludwig. AT YOUR SERVICE. Evanston, Illinois: Row, Peterson and Company, 1941. Pp. 235. ($2)

Reveals the human side of the hotel business. It is profusely illustrated and written in a lively manner by a noted author and former hotel man.

Monographs

American Job Series Guidance Monographs. Chicago: Science Research Associates. ($.60)

Brown, Jean Collier. HOUSEHOLD WORKERS. 1940.
Eisman, Louis. THE UNSKILLED WORKER. 1940.

Careers Research Monographs. Chicago: Institute for Research.

No. 54 BEAUTY-SHOP MANAGEMENT AS A CAREER
56 GARAGE MANAGEMENT AS A CAREER
69 RESTAURANT AND TEA-ROOM OPERATION AS A CAREER
70 THE DRY CLEANING INDUSTRY--CAREERS
72 MORTUARY OPERATION AS A CAREER
161 SANDWICH-SHOP OPERATION AS A CAREER

Vocational and Professional Monographs. Boston: Bellmen Publishing Company, Inc., 1946 ($.50)

Bradley, Alice. COOKING
Burton, Irving Lester. BEAUTY CULTURE
Huntington, Richard. HOTEL BUSINESS
Voegele, Walter O. RESTAURANT BUSINESS

Pamphlets

Beauty Culture as a Vocation. Connecticut State Department of Education, 1945. (Free)

Brief but informative description of the nature of the work, working conditions, skill needed, employment opportunities in the field. Well illustrated.

The Food Trades as a Vocation. Connecticut State Department of Education, 195. (Free)

Brief but informative description of the opportunities in the food field. Well illustrated.

Sources of Free and Inexpensive Materials*

Domestic and Personal Service

Cincinnati College of Embalming
3202 Reading Rd.
Cincinnati 29, Ohio

National Funeral Directors Association of the United States, Inc.
111 W. Washington St.
Chicago 2, Ill.

U. S. Women's Bureau
Department of Labor
Washington, D. C.

Hotels and Restaurants

American Hotel Association
221 W. Fifty-seventh St.
New York 19, N. Y.

Chairman, Hotel-Practice Committee
Cornell University
Ithaca, N. Y.

National Restaurant Association
8 S. Michigan Ave.
Chicago 2, Ill.

New York State Restaurant Association, Inc.
369 Lexington Ave.
New York, N. Y.

Laundry and Cleaning

American Institute of Laundering
Joliet
Illinois

National Association of Dyers and Cleaners
Silver Springs
Maryland

* Yale, John R., HOW TO BUILD AN OCCUPATIONAL INFORMATION LIBRARY. (Revised Edition), Chicago: Science Research Associates, 1946, pp63-76.

CHAPTER V

THE PRIMARY OUTDOOR GROUP

General Statement of the Unit[66]

The primary outdoor group includes workers in the agricultural, marine, and forestry fields. This group includes workers who raise and harvest crops; breed, care for, hunt and catch fish and animals; handle boats; preserve forests; gather forest products; and perform other related outdoor activities.[67]

Workers in this group should have good health; physical stamina; agility; and a liking for, and ability to adjust to the mode of life required by the nature of the work.[68]

Delimitation of the Unit[69]

1. The primary outdoor group may be divided into agricultural workers, marine workers, and forestry workers.[70]

2. Persons interested in farming should have such traits as:[71]

   a. Good health, physical stamina, agility

   b. Liking for outdoor work

   c. Interest in plant and animal life

   d. Ability to adjust to hours of farm employment

   e. Ability to plan activities on a yearly basis

   f. Individual responsibility

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66. Billet, Op. Cit., p. 505.
67. War Manpower Commission, Op. Cit., p. 13.
68. Ibid., p. 163.
69. Billet, Op. Cit., p. 508.
70. War Manpower Commission, Op. Cit., p. 163.
71. Ibid., p. 163

3. The possession of the traits desirable for agricultural work may be estimated from achievement in agricultural courses, casual work experience, and accomplishment in 4-H or related activities.[72]

4. Persons interested in marine work should have such traits as:[73]

a. Liking for the sea and boats

b. Good health, physical stamina, agility

c. Manual dexterity

d. Mental alertness

e. Ability to adjust to life at sea

f. Ability to swim

5. The possession of the traits desirable for marine work may be estimated from hobbies; reading; interest in such subjects as physical geography, nautical sciences, and social studies.[74]

6. Persons interested in forestry should have such traits as:[75]

a. Good observational ability

b. Good health, physical stamina, and agility

c. Interest in trees and forest life

d. Ability to adjust to camp life

7. The possession of the traits desirable for forestry work may be estimated from hobbies, casual work experiences, and achievement in related training courses.[76]

8. Although there is no set line which divides the two, agriculture may be divided into:

a. General agriculture

b. Horticulture

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72. War Manpower Commission, Op. Cit., p. 163.
73. Ibid., p. 163.
74. Ibid., p. 163.
75. Ibid., p. 163.
76. Ibid., p. 163.

9. General agriculture involves the raising of ordinary farm crops, such as grain, hay, cotton, and animals.

10. Horticulture is the art and science of growing fruits, vegetables, and flowers.

11. Farming is the oldest of all occupations and has lost none of its importance with the passing of time.

12. Approximately one-fourth of the population of the United States lives on farms.

13. Few occupations offer employment for so many young Americans as farming.

14. Farming provides a high degree of independence and self-sufficiency.

15. Farmers work hard and for long hours, but they are free from the regular hours of the urban worker.

16. Farming offers a great variety of employment.

17. Farming is not just an occupation but a mode of life.

18. Farm life becomes more attractive as modern conveniences are made available.

19. Farmers do not make much money, but they do as well as city workers in the matter of saving money and acquiring property.

20. All of us are dependent upon farming.

21. In addition to providing us with food and other necessities, farming also provides jobs for more than half of the nation's urban workers.

22. Farming enables one to satisfy the creative urge.

23. Farming is healthful outdoor work.

24. Farming offers security from unemployment.

25. The farmer's personal and household expenses are small.

26. A farmer may be home with his family.

27. Farmers live well compared with city workers who make the same amount of money.

28. Farming provides opportunities for stimulating employment in the improvement of livestock and crops and other creative achievements.

29. The disadvantages of farming include:

a. Requires capital to get started

b. Income is uncertain

c. No weekly or monthly pay check

d. Cannot set price on own products

e. Competes with untrained workers, making for low wages

f. There may be overproduction and low prices.

g. Outdoor work must be done in bad weather

h. Schools, churches, and entertainment facilities may not be convenient or of sufficiently high standard

i. Difficult to get away for vacations

j. Achievements in farming are not recognized to the same extent as in other lines of work.

30. Many of the former disadvantages of farming do not exist.

31. Favorable loan policies make it easier for a young man to buy a farm today.

32. The outlook for farming, on the whole, is promising.

33. Post-war food relief programs created a demand for farm products that will probably remain at a permanently high level.

34. Farm products are being used more and more as the raw products of industry.

35. Many kinds of farming are practiced in the United States.

36. The United States Census Bureau classifies all farms into twelve groups.

37. There are usually logical, practical reasons why a particular type of farming is carried on in a community or section.

38. Farming offers employment opportunities for four classes of workers:

    a. Farm owners

    b. Farm managers

    c. Farm tenants

    d. Farm laborers

39. Farm owners include

    a. Farmers operating their own land

    b. Farmers operating their own land and some land rented from others

40. Farm managers are farmers who conduct farm operations for owners for wages or salaries.

41. Farm tenants are farmers who operate only hired land.

42. Laborers or hired hands are employed for cash payments on a temporary or permanent basis.

43. Improvement and increased use of farm machinery have decreased the number of laborers needed on farms.

44. Labor-saving machinery has been applied to most farm operations.

45. Farm work is easier today than ever before, but it is still strenuous work.

46. Power-operated tools and machinery have made farm work easier and more desirable, but they have also increased the capital needed.

47. Farming incomes vary widely.

48. There are no specific training requirements to enter the field of farming.

49. To become outstandingly successful, a farmer must possess the best qualities of laborers, businessmen, and scientists.

50. Training for farmers pays dividends.

51. There are excellent training opportunities, formal and informal, for persons interested in farming.

52. Formal education for agriculture may be obtained both on the college and high school level.

53. Every state has a land-grant college.

54. Any boy who is a high school graduate, or any person over twenty-one years of age, may enter a state agricultural college.

55. All land-grant colleges are affiliated with the United States Department of Agriculture and the United States Office of Education and receive some federal funds for carrying on their activities.

56. The programs of the land-grant colleges include:

a. Teaching

b. Extension work

c. Research

57. Agricultural colleges offer a variety of courses.. Some of these courses lead to a degree and some do not.

58. Most of the informal training aids available to farmers are supplied by the federal, state, and local governments.

59. The legislation which created the Agricultural Extension Service made it possible to have a county agent and a home demonstration agent in every county in the nation.

60. Under the same legislation, many counties are able to employ a man and a woman to work with farm boys and girls. These men and women organize and carry on the 4-H Club program.

61. County agents work with farmers.

62. Home demonstration agents work with farm women.

63. All of these Extension Service agents have offices in the county seat towns, and they are anxious to have anyone who is interested in farming call on them. They will give or secure information on any subject related to farming.

64. In addition to the Agricultural Extension Service workers, there are many other agricultural service workers located in county seat towns throughout the nation.

65. The United States Department of Agriculture, with headquarters in Washington, is the parent or head of most of the agricultural agencies that have local offices through out the country.

66. The state college of agriculture distributes bulletins on any important agricultural subject. Most of these bulletins are free.

67. The state college of agriculture welcomes letters of inquiry concerning farm problems. Each letter is answered by a specialist in the field with which the problem is concerned.

68. No group of American citizens is served so completely as the American farmer.

69. "Hired men", apprentices, and farmers' sons hold what may be considered the beginning jobs in farming.

70. Tenants, junior partners, and managers occupy what might be considered intermediate jobs.

71. Landowner-operators represent the terminal positions which most farm workers hope to reach.

72. Hired hands make very little money but they do have an opportunity to acquire valuable and needed experience.

73. Horticulture includes the growing of fruits, vegetables, and flowers; the selling of floral products; the planning and building of landscapes.

74. Hundreds of thousands of people find employment in horticulture.

75. Many kinds and degrees of skill are needed and used in horticulture.

76. Scientific knowledge and training are becoming increasingly necessary in horticulture.

77. The field of horticulture may be divided into four main groups:

a. Pomology (which is fruit growing)

b. Olericulture (which is vegetable culture)

c. Floriculture (which is flower culture)

d. Landscaping (which is beautifying home surroundings)

78. Horticulture is not a single science but a combination of many.

79. Horticulture offers an opportunity to use all of your abilities to the fullest extent.

80. The florist must

a. Like flowers and enjoy handling and arranging them

b. Be able to arrange them so that they will express the sentiment of the customer

c. Be artistic and have good judgment concerning colors and color combinations

d. Understand business principles

81. Landscaping is the art and science of creating a landscape view by planting trees, shrubs, and flowers.

82. In landscaping, there are three main types of workers:

a. Landscape architects

b. Nurserymen

c. Landscape gardeners

83. The landscape architect is a highly trained professional person who has the artistic and creative skill necessary to draw up the plans for a landscape construction.

84. The nurserymen furnish the plants, trees, and other materials.

85. The landscape gardener supervises and directs the planting and care.

86. There is no short cut to success in horticulture; it calls for both training and experience.

87. There are many opportunities for women in horticulture.

88. The profession of forestry has sprung from our efforts to halt the waste of timber, game, and soil.

89. The value of the forester's work is now recognized.

90. The forester has behind him the power of the federal, state, and local governments.

91. Private companies are recognizing the practical value of proper forest management.

92. Forestry workers must be scientists, manual laborers, business executives, firemen--all at the same time.

93. The great boom in forestry jobs is probably over. Stiff competition now awaits graduates of our forestry schools.

94. Employment of forestry workers still increases. Although employment may slow down, there is no reason to expect it to stop.

95. The forestry profession offers rewards which are well worth the risk of competition for jobs.

96. The life of the forest ranger has a romantic appeal to almost every boy and girl.

97. The forester works long and hard at a difficult and important job.

98. Forestry as a profession and science is comparatively new.

99. The work done by foresters affects the lives of all of us.

100. There are four types of organizations that use forest workers.

a. Federal government

b. State governments

c. Local communities (including cities and counties)

d. Private employers

101. The men and women who work in forestry may be divided into two main groups: the trained and the untrained.

102. Both trained and untrained workers are found in every organization which carries on forestry work and employs foresters.

103. The great majority of forest workers are in the untrained class.

104. The jobs requiring training are usually held by college graduates or by men who have worked their way up from field jobs.

105. The types of work which usually go to trained foresters are:

a. Supervision of untrained workers in protection, restoration, and harvesting

b. Use of wood through chemistry, architecture, and engineering

c. Research related to growth and management of trees and to forest wildlife

d. Wildlife and range management and recreational planning

e. Teaching

f. Public relation work

g. Tree surgery

h. Wood technology

106. The field jobs, usually held by untrained men or by trained men who are beginning at the bottom, include such work as:

a. Patrol duty

b. Manning forest lookout stations

c. Marketing timber

d. Fighting forest fires

e. Building trails and roads

f. Many types of tree harvesting

g. Naval stores work

h. Logging and lumbering

107. In the United States Forest Service, trained men hold the key positions. These key positions pay good salaries.

108. The salaries of untrained workers are considerably lower than those of trained workers.

109. The forest rangers work is as important as that of any public agent today.

110. Most forestry jobs are not routine.

111. The forester's work often carries him to remote places. He is often shifted from place to place, and his work may change with each shift.

112. The ranger is unable to establish a home in the early years of his career, but he does have an opportunity for wide and varied experience.

113. The key men in the United States Forest Service are the district forest rangers.

114. Each district forest ranger is assigned to a certain district of a national forest and all forestry activity in that district comes under his supervision.

115. The ranger is responsible to regional and national offices.

116. The men who work in his district are responsible to the ranger.

117. One of the most important jobs any forester has is the protection of forests from fire.

118. The ranger is responsible for the building of roads and trails to make it easy to reach all sections of his district.

119. The forest ranger's job calls for brains, muscles, courage, and a faith in the importance of the job at hand.

120. Forestry is a great profession with many branches.

121. Most Forest Service men start their careers by passing a civil service examination for the position of junior forester or junior range examiner.

122. Forestry work, like other professions, has need for many types of specialists.

123. The forester must be well-trained. His job has a great many sides, and he must know a great deal about many different things.

124. The Society of American Foresters publishes a list of recognized forest schools which give graduate and undergraduate courses in forestry.

125. Commercial forest firms use a great army of untrained and partly trained workers as their main labor force.

126. The field of forestry as a whole is a growing one.

127. Forestry as a profession and as an applied science is just beginning to come into its own.

128. Increased interest in soil and water conservation is considerably increasing the prospects for foresters.

129. Industries using wood for the production of paper, plastics, synthetic fabrics, and furniture need men with forestry training.

130. Graduate foresters can put their training to work by entering allied fields and becoming landscape architects, nurserymen, surveyors, or highway engineers.

131. The research going on at the present time to develop new lower-cost homes indicates the possibility of a boom in lumbering.

132. Men are needed in the laboratories as well as in the fields, woods, and forests.

133. Research continues to develop new products from wood, and these new products sometimes result in whole new industries being founded.

134. Men with training and experience are needed in forest tree nurseries, experiment stations, colleges of forestry and many other activities.

135. During normal times, about 125,000 people make their living at fishing.

136. The associated industries of preparing and preserving fish and of by-product manufactures employ additional thousands of workers.

137. Practically no women engage actively in commercial fishing, but many work in the canneries and other shore plants.

138. The fisherman's work varies greatly depending upon how, where, and for what he is fishing.

139. Fishermen may be classified as:

a. Deep-water or offshore fishermen

b. Shallow-water or inshore fishermen

140. Offshore fishermen are usually at sea for a week or longer at a time because the fishing grounds are far from the home port. They man various sorts of large vessels and perform seamen's duties as well as actually doing the fishing.

141. Inshore fishermen usually go out for the day and return in the evening.

142. Most fishermen work on a share basis rather than for a definite salary. The fishermen's pay depends on the selling price of the fish they catch.

143. Some fishermen are hired by companies and paid on a time or piece basis.

144. There are many different arrangements by which fishermen share profits and expenses. These arrangements vary in different regions.

145. The work of the fisherman is irregular and seasonal in nature.

146. Some fishermen belong to outfits that have different kinds of equipment and prolong the work-year by going after whatever fish are in season.

147. Some fishing outfits specialize in one kind of fish and spend the rest of the year keeping their equipment in top condition.

148. Some fishermen supplement their income by doing other kinds of work during the off seasons.

149. Fishing is hard and sometimes dangerous work. It requires strong men in excellent health.

150. The work requires patience, skill, strength, and cooperation among all the members of the crew from the captain to the cook.

151. Fishermen must know the habits and characteristics of the fish they seek and must be able to handle the ships and boats in all kinds of weather.

152. The art of fishing is learned mostly through practice. There are no formal educational requirements.

153. Fishermen must conform to the laws governing fishing in the area.

154. Most fishermen are fishermen's sons. A newcomer finds it hard to get established in any fishing community.

155. Close nationality groups control the fishing in many localities.

156. Fishermen may operate their own boats independently, or they may work for some other individual or a fishing company.

157. Large corporations are not very common in the fishing industry.

158. Very often two or more men own a boat as partners, work together, and share the profits.

159. Fishing often attracts men who want to be independent and to earn their living working in the open.

160. A large element of gamble enters into the fishing business. A poor annual run of fish, fall in market prices, or accidents which damage nets or vessels might greatly reduce the fisherman's income.

161. Fishing is arduous manual labor, and often back-breaking work must be continued for long hours.

162. Fishing is outdoor work and the men must brave all kinds of weather.

163. Fishing is a perilous occupation.

164. Because the fisherman's earnings come from market sales, the increased use of fish benefits him.

165. Improved methods of refrigeration have increased the demand for fish in interior parts of the country.

166. The recent war resulted in a greater consumption of fish; and many people, newly introduced to eating fish, will continue to serve it more frequently.

167. Many relatively unknown varieties of fish have been popularized.

168. Research is finding new uses for fish by-products. Through this research, much of the fisherman's catch that formerly had no commercial value is being utilized.

169. The outlook for fishermen should not be dark in the near future, but no sudden expansion that will create a demand for new workers is anticipated.

170. Fishermen's wages vary according to the

a. Locality

b. Success of the catch

c. Current market

A. Introductory Activities

1. A carefully selected film might be shown and discussed by the class. (A list of suggested films is provided with this unit.)

2. If the class has been making an occupational survey of the community in connection with this study of occupations, a group discussion concerning the primary outdoor workers in the community might be held and a committee chosen to enter the markers indicating where primary outdoor workers are employed in the community. (Suggestions fro making such an occupational survey may be found in Appendix A.)

3. If there is some individual in your community who is especially interested in primary outdoor work and knows how to present his story to pupils of the age group that you have in class, you might arrange to have this person speak to the class. Your local county agricultural agent, home demonstration agent, or 4-H representative is often well-qualified for this task. (If you are inviting a lay person to speak to your group, be sure to provide this speaker with an outline of the topics you wish covered. For suggestions on making such an outline, see Appendix B.)

4. Plan a trip to some local place where primary outdoor workers are on the job.

B. For Individual Study and Investigation

1. What are the chief fields of work included in the primary outdoor group?

2. Make a list of the traits that you think all primary outdoor workers should have and then check the traits that you think you possess. You might like to make a rating scale and rate yourself on each of the traits listed.

3. List any special traits that you think are important for specific groups of primary outdoor workers and rate yourself on these additional traits.

4. Write a composition telling why you do or do not think you would be happy and successful as a primary outdoor worker. Perhaps you would prefer to wait until later on in the unit before writing this composition, but be thinking about it.

5. Make a list of the ways in which primary outdoor workers contribute to the life of the community.

6. Select one person whom you consider a successful primary outdoor worker. Describe his work, his status in the community, and the personal qualities that you think have helped to make him a success.

7. About what per cent of the working people in our community are primary outdoor workers? How does this percentage compare with the percentage for the United States as a whole?

8. What types of primary outdoor workers do we have in our community? List the factors that you think have caused these particular types of primary outdoor workers to locate here.

9. List the advantages and disadvantages of work in each of the three main divisions of primary outdoor work.

10. What are the educational and/or training requirements for primary outdoor workers, and where may the education and/or training be acquired?

11. How may a young person get started in each of the three main fields of primary outdoor work?

12. What opportunities for advancement does each of the fields of primary outdoor work offer?

13. List some of the best sources of information about primary outdoor work.

14. How does the income from primary outdoor work compare with that in other fields of work?

15. What are the prospects for the future in each of the primary outdoor fields? List new developments that might result in increased or decreased opportunities in these fields.

16. What is meant by the statement, "Farming is not just a job but a way of life"?

17. Distinguish between general agriculture and horticulture.

18. Make a list of as many different types of horticultural workers as you can and describe the work done by each.

19. The two main groups of forestry workers are the trained and the untrained. Describe the differences between these two groups as regards:

a. Entrance requirements

b. Nature of work

c. Salaries received

d. Opportunities for advancement

20. What types of organizations employ forestry workers?

21. Fishermen may be classified as either deep-water or shallow-water fishermen. Describe the work of each of these groups.

Optional Related Activities

A. Oral Work

1. Prepare an oral report on one of the following topics or on some topic that you might care to suggest. If you use a topic other than those on this list, get the teacher's approval. Your talk will be more interesting for the class if it is illustrated so try to find pictures that will help to put your ideas across and that are suitable for use in the opaque projector. A member of the visual aids committee will be happy to help you set up the machine and show you how to use it.

a. How the 4-H serves rural youth

b. Future Farmers of America

c. Farming as a way of life

d. Visit to a county or state fair

e. Government agencies that help the farmer

f. Inventions which have helped the farmer

g. Opportunities for women in horticulture

h. Training for farmers pays dividends

i. Our local land-grant college

j. The agricultural service workers in my community

k. History of government forest conservation

l. The United States Forest Service

m. Motion pictures that show primary outdoor workers

n. Unusual occupations in the primary outdoor group

2. Present a panel discussion on one of the following topics or on a topic that you might care to suggest. Get the teacher's approval if you use a topic other than those listed here.

a. The value of education and special training for primary outdoor workers

b. Opportunities for young people in primary outdoor work

c. The primary outdoor workers' contributions to society

d. The farmer--a laborer, businessman, and scientist

e. Trends in primary outdoor work

3. Report on one of the following:

a. An interview with a worker in the field of primary outdoor work. (If you are interested in this activity, prepare a series of questions that you plan to ask this worker and get the teacher's approval. Make an appointment for the interview well ahead of time.)

b. A trip to a place where primary outdoor workers are on the job, such as:

(1) A forest nursery

(2) A green house

(3) An agricultural school or college

(4) A fish hatchery

(5) A forest lookout station

(6) A fish pier

(7) A modern dairy farm

4. Prepare a debate on some controversial topic related to primary outdoor work. If you are interested in this activity, the teacher will be glad to help you word the resolution and locate sources of information.

5. Conduct a junior town meeting and discuss some of the real (or imaginary if it is not a rural community) problems of primary outdoor workers in our community.

6. Prepare a radio talk on one of the topics listed in 1-3 above or on some other topic concerned with primary outdoor work. Be sure to get the

teacher's approval of topics other than those listed.

7. Prepare and present a skit illustrating

a. Our dependence upon the farmer

b. Changes in farm life

c. Farming as a way of life

d. The plight of the farmer

e. The legend of Paul Bunyan

f. Paul Bunyan's new job

g. Types of farm workers

h. The many abilities needed in farming, forestry, or fishing

i. Any facts concerning primary outdoor work that may be illustrated in this way

B. Written reports

1. Any topic under A that you would prefer to do in writing.

2. Prepare an article on some topic concerned with primary outdoor work for your school or local newspaper. Such topics as the following might be suitable:

a. An outstanding primary outdoor worker in our community

b. A graduate of our school who has been successful in agricultural college or as a primary outdoor worker

c. A hobby that might develop into a vocation in primary outdoor work

3. Take a poll to find out how many of the pupils in our school are interested in careers in primary outdoor work.

4. Make a survey of opportunities for primary outdoor workers in our community.

5. Prepare a list of books on primary outdoor work that you think would make valuable additions to our school or town library. If you care to, you might discuss your findings with the school or town librarian.

6. Prepare an imaginary report of a

a. Milk strike

b. Forest fire

c. Fishing disaster

7. Prepare an imaginary diary for some type of primary outdoor worker. If you have occasion to spend some time where you can really perform some type of primary outdoor work, keep a real diary of your daily activities.

8. Write a letter

a. To a primary outdoor worker who might be interested in giving you information about this field

b. To a friend in the city telling about your experiences in primary outdoor work

c. To an agricultural college or school asking for information about entrance

d. To your county extension service or the state college of agriculture concerning some real problem, such as:

(1) Care or repair of the school lawn

(2) Plants suitable for growth in a school room

(3) Some problem that concerns your parents

(4) How to organize a 4-H group

9. Write a poem or song about primary outdoor work or primary outdoor workers.

C. Drawing

1. Draw a picture, cartoon or poster illustrating some facts about primary outdoor work or workers, such as:

a. Primary outdoor workers' contributions to society

b. Incomes in primary outdoor work vary widely

c. Training for primary outdoor workers pays dividends

d. Farmers live well compared to city workers who make the same amount of money

e. The government helps the farmer

f. Traits that make successful primary outdoor workers

2. Draw a picture of some phase of primary outdoor work that particularly interests you.

3. Design a suitable cover for the written material that you are passing in with this unit.

D. Charts, graphs, maps, photographs

1. Make a graph showing the percentage of people in our community, state, and nation who are engaged in primary outdoor work.

2. Make a chart showing how you depend on primary outdoor workers and haw they depend on you.

3. Make a chart showing opportunities for advancement in some phase of primary outdoor work.

4. Make a map of our community and indicate areas in which primary outdoor workers are employed.

5. Collect photographs of primary outdoor workers at work. We might arrange an interesting bulletin board display showing members of our class performing primary outdoor tasks.

6. Make a chart, graph, or map illustrating any interesting facts concerning primary outdoor work. You might enjoy making a chart that is wired to an electric bell. This type of chart usually contains material that is set up similar to the matching questions that we have on tests. If you match the correct question and answer, the bell rings. If you are interested in trying to make such a chart, the teacher will be glad to help you.

E. Collections and Exhibits

1. See D. 5 above.

2. Make a collection of pictures which show changes in primary outdoor work, types of outdoor work, or some other factors that might be well illustrated by a series of pictures.

3. Volunteer to be a member of the bulletin board committee. See the special study guide--Suggestions for Bulletin Board Displays.

4. Build a model illustrating some phase of primary outdoor work.

5. Build a diorama illustrating some phase of primary outdoor work.

6. Make a collection of song and/or poems about primary outdoor work.

7. Dress dolls as primary outdoor workers.

F. Field Trips

1. Plan a trip as a class, small group, or individual to:

a. A farm

b. A fish hatchery

c. A tree nursery

d. A green house

e. An agricultural school or college

f. Agricultural fair

g. Forest lookout tower

h. Flower show

i. Sportsmen's show

j. Agricultural festival (e.g. Nashoba Apple Blossom Festival)

2. All field trips should be carefully planned in advance. If you would like to plan a field trip, fill in all of the information on the special study guide and get the teacher's approval of your plans.

G. Club and organizational activities

1. If you are a member of the boy or girl scouts, 4-H, or other organizations, look up the merit badges or awards that might be earned for activities of the type performed by primary outdoor workers.

2. If you are a member of the school's dramatic or marionette club, you might be interestedin staging a production illustrating some phase of primary outdoor work.

3. There are many interesting and entertaining social activities usually associated with primary outdoor workers. Perhaps the class would like to hold such an activity as a:

a. Barn dance

b. Husking bee

c. Hay ride

d. Sugaring-off party

e. Quilting party

f. Sleigh ride

g. Fishing trip

4. If you are a member of the 4-H, you probably know about the exhibit of children's garden products that is held by the Massachusetts Horticultural Society. This exhibition is held in Boston during the latter part of August and cash awards are given for all types of garden products that have been grown by children. You might be interested in writing to the Society and getting information on entering exhibits at this show.

H. Additional committee work

1. Volunteer to be a member of the library committee. See special study guide.

2. Volunteer to be a member of the planning committee. This committee will select the best of the optional activities completed in connection with this unit and program them for presentation to the class.

Bibliography for Pupils

Books

Agriculture

Anderson, H. P. YOUR CAREER IN AGRICULTURE. New York: H. P. Dutton and Co., Inc., 1940. Pp. 285. ($2)
Handbook for those interested in agricultural careers. Part I--Taking measure of agriculture and yourself; Part II--Your career as a farmer; Part III--Your career as an agricultural scientist.

Boss, Wilson. AMERICAN FARMING. St. Paul, Minnesota: Webb Book Publishing Co., 1939. Pp. 526. ($3.50)
Provides students with facts they need to know and things they need to do as aids to success in farming.

Grimes, Waldo E., and Edwin L. Holton. MODERN AGRICULTURE. Boston: Ginn and Co., 1940. Pp. 646. ($1.72)
School textbook on farming as a mode of living.

Forestry

Bruere, Martha Bensley. YOUR FORESTS. New York: Lippincott Co., 1945. Pp. 159. ($2.50)
Story of American forests and the U.S. Forest Service. Includes discussion of new uses and treatments of wood and forestry as a man's job.

Perry, Josephine, and Celeste Slauson. FORESTRY AND LUMBERING. New York: Longmans, Green and Co., Inc., 1945. Pp. 125 ($1.75)
Simply told facts concerning forestry and lumbering. Well illustrated.

Marine Work

Perry, Josephine. FISH PRODUCTION. New York: Longmans, Green and Co., Inc., 1940. Pp. 104. ($1.75)
Describe the fishing industry, with simple text and excellent illustrations.

Monographs

American Job Series Guidance Monographs, Chicago: Science Research Associates ($.60)
Chapman, Paul W. JOBS IN RURAL SERVICE. 1945.
Chapman, Paul W. OPPORTUNITIES IN FARMING. 1947.
Elliott, Charles N. CAREERS IN FORESTRY. 1945.
Elliott, Charles N. CAREERS IN WILDLIFE MANAGEMENT. 1942.
Wernicke, Gilbert W. JOBS IN HORTICULTURE. 1944.

Careers Research Monographs. Chicago: Institute for Research.

No. 13 Landscape Architecture as a Career
20 General Agriculture as a Career
21. Horticulture as a Career
22 Animal Husbandry as a Career
23 Forestry as a Career
24 Farm Management as a Career
63 Careers in the Florist Industry
79 Dairy Farming as a Career
115 Fur Farming as a Career
170 Poultry Farming as a Career
175 Vegetable Farming as a Career

Success Vocational Information Series. Chicago: Morgan-Dillon and Co., ($.32)

No. 50 Dairying
51 General Farming
52 Stock Raising
54 Market Gardening
16 Florist Industry

Pamphlets

A JOB WITH THE UNITED STATES FOREST SERVICE. Washington: U. S. Department of Agriculture, 1947.
Information about permanent and temporary jobs with the U. S. Forest Service.

CAREERS IN FORESTRY. Washington: U. S. Department of Agriculture, 1938.
History, job descriptions, and opportunities in government forestry.

HANDBOOK OF DESCRIPTIONS OF SPECIALIZED FIELDS IN FORESTRY. Washington: War Manpower Commission, 1945.
Descriptions of special types for positions in government forestry.

OCCUPATIONS FOR THE AGRICULTURALLY TRAINED. Corvallis, Oregon: Oregon State Agricultural College, Bulletin #464, 1930.
Descriptions of positions oper to those with college training in agriculture and the opportunities for getting this training in Oregon.

Suggested Audio-Visual Aids

Films

DAIRY INDUSTRY. 11min., 16mm. sound, $50., 1942. Vocational Guidance Films, Inc. (In many film libraries)
One of the vocational guidance film series especially prepared for ninth grade occupational classes, home rooms, and meetings such as PTA groups. Presents the work involved in producing, processing, and marketing dairy products. Many jobs on the dairy farm are shown. Rated as excellent film by Educational Film Guide.

FOREST RANGER. 33 min., 16mm. sound, $26. 1941. Castle Films.
United States Department of Agriculture film which may be borrowed by paying transportation costs. (Contact local forest service.) Explains the duties and services performed by the forest rangers. Very thorough coverage of subject.

GENERAL AGRICULTURE. 10 min., 16 mm. sound, $50., 1942. Vocational Guidance Films. (In many film libraries)
One of the vocational guidance films series. See DAIRY INDUSTRY above.

NEW ENGLAND FISHERMEN. 11 mim., 16 mm. sound, $50., 1938. Encyclopaedia Britiannica Films. (In many film libraries)
Domestic life and work of New England fishermen. Work and living conditions aboard a steam trawler.

POULTRY RAISING. 10 min., 16 mm. sound, $50., 1943. Vocational Guidance Films, Inc. (In many film libraries)
Another of the vocational guidance film series. See DAIRY INDUSTRY above.

Film Strips

Visual Education, Inc., 100 E. Ohio St., Chicago, Ill.

General Farming, Part I
General Farming, Part II

Vocational Guidance Films, Inc., 2718 Beaver Ave., DesMoines, Iowa.

Agricultural, Fishery, and Forestry Occupations
Tree Surgery

Sources of Free and Inexpensive Materials*

Agriculture

Michigan State College
Extension Service
East Lansing, Mich.

New York State College of Agriculture
Cornell University
Ithaca, N. Y.

University of California
College of Agriculture
Agricultural Experiment Station
Berkeley 4, Calif.

University of Illinois College of Agriculture
Office of Publication
Urbana, Ill.

U. S. Agricultural Adjustment Administration
Department of Agriculture
Washington 25, D. C.

U. S. Bureau of Agricultural Economics
Department of Agriculture
Washington 25, D. C.

U. S. Farm Credit Administration
Department of Agriculture
Kansas City, Mo.

U. S. Farm Security Administration
Department of Agriculture
Washington 25, D. C.

Animal Husbandry

American Veterinary Medical Association
600 S. Michigan Ave.
Chicago 5, Ill.

Horse and Mule Associa tion of America, Inc.
407 S. Dearborn St.
Chicago 5, Ill.

* Yale, John R., HOW TO BUILD AN OCCUPATIONAL INFORMATION LIBRARY. (Revised Edition), Chicago: Science Research Associates, 1946, pp. 63-76.

United States Bureau of Animal Industry
Department of Agriculture
Washington 25, D. C.

Fishing

American Can Company
230 Park Ave.
New York, N. Y.

U. S. Fish and Wildlife Service
Department of Interior
The Merchandise Mart
222 W. North Bank Dr.
Chicago 54, Ill.

Forestry and Lumbering

American Forests Products Industries, Inc.
1319 Eighteenth St.
Washington 6, D. C.

New York State College of Forestry
Syracuse University
Syracuse, N. Y.

Northwest Regional Council
Portland
Oregon

P. H. Glatfelter Company
Spring Grove
Pennsylvania

Society of American Foresters
825 Mills Building
Seventeenth St. and Pennsylvania Ave., N. W.
Washington 6, D. C.

U. S. Forest Service
Department of Agriculture
Washington, D. C.

West Coast Lumbermen's Association
364 Stuart Building
Seattle, Wash.

Landscaping

American Society of Landscape Architects
9 Park St.
Boston 8, Mass.

F. A. Bartlett Tree Expert Company
Stamford
Connecticut

Davey Tree Experts
Kent
Ohio

Rural Services

U. S. Extension Service
Department of Agriculture
Washington 25, D. C.

CHAPTER VI

ESTIMATING PUPIL GROWTH

Teacher observation Throughout the unit, the teacher should be constantly on the alert to notice changes in the individual members of the class. Having made a thorough study of the pupils, the teacher will have some idea of the needs and potentialities of each and be able to recognize those changes in each individual which represent growth.

Objective test A long objective test covering all of the items in the delimitation and as much of the incidental learning as possible is another means of estimating pupil growth. The following types of questions are suggested:

I. Classification

Directions: By writing the appropriate letter on the line at the right, indicate whether each of the following would be classified as:

a. Public Service worker
b. Technical or Scientific Worker
c. Managerial worker
d. None of these

1. Doctor	1.____
2. Teacher	2.____
3. Policeman	3.____
4. Librarian	4.____
5. Social Worker	5.____

6. Nurse	6._____
7. Secretary	7._____
8. Lawyer	8._____
9. Clergyman	9._____
10. Engineer	10._____
11. Draftsman	11._____
12. Office Manager	12._____
13. Recreation Director	13._____
14. Dentist	14._____

II. Completion

Directions: Enter on the line at the right the letter of the item at the bottom of the page that correctly fills each blank.

The organized knowledge group includes workers in __1__, __2__, and __3__ work which requires the capacity to acquire and apply special __4__. Most of the positions in this field require a __5__ education.

Public service workers might be further divided into __6__, __7__, and __8__ workers. __9__ and __10__ are examples of instructive service workers. __11__ and __12__ are examples of social service workers. __13__ and __14__ are examples of protective service workers.

1.___
2.___
3.___
4.___
5.___
6.___
7.___
8.___
9.___
10.___
11.___
12.___
13.___
14.___

a. Skill
b. Recreational Director
c. Technical or Scientific
d. Policeman
e. Social Service
f. High school
g. Engineer
h. Protective Service
i. Doctor
j. Instructive Service
k. Public Service
l. Knowledge
m. Fireman
n. Managerial
o. College
p. Teacher

III. Trait Analysis

Directions: By writing the appropriate letter on the line at the right, indicate whether each of the following traits is most important for:

a. Computing workers

b. Recording workers

c. General clerical workers

1. Proficiency in spelling, punctuation, and grammar 1.___
2. Ability to sort and classify records 2.___
3. Speed and accuracy in making mathematical calculations 3.___
4. Ability to concentrate 4.___
5. Manual dexterity 5.___

IV. Matching

Directions: On the line to the right of each item in column 2, write the letter of the type of worker in column 1 that is described.

Column 1	Column 2	
a. Switchboard operator	1. Greets all callers and directs them to proper member of staff	1.___
b. Receptionist	2. Handles telephone calls--inter-office and outside	2.___
c. Stenographer	3. Usually the lowest paid beginning office job	3.___
d. C. P. A.	4. Takes dictation and transcribes the shorthand notes	4.___
e. Office boy	5. Copies material that has been previously written or recorded	5.___
f. Typist	6. Accountant who has been certified by the state to prepa re financial reports	6.___
g. Auditor		
h. Cashier		

7. Workers who handle money 7.___

8. Computing worker who is especially trained to check books kept by others 8.___

V. True and False

Directions: Indicate by writing True or False on the line at right whether each of the following statements is true or not.

1. Every state has a land-grant college. 1._____

2. Any boy who is a high school graduate may enter his state agricultural college. 2._____

3. Forestry is one of our oldest professions. 3._____

4. Most forestry jobs are very routine. 4._____

5. The work of the fisherman is irregular and seasonal in nature. 5._____

Score card In evaluating individual and group activities, the use of a score card has proved very satisfactory. In addition to rating the final product of the activity, the card may be used to rate the quality and originality of the idea, organization of work, method of attack, and presentation to the class.

A P P E N D I X A

Suggestions for Making an Occupational Survey of the Community

1. Be sure that each member of the class understands the nature and purpose of the survey.

2. Give each pupil some definite responsibility in connection with the survey.

3. Interest as many people in the community as possible in your survey.

4. Help pupils draw up a questionnaire that will give the desired information about occupations in the community.

5. Assign each student a definite area of the community to survey.

6. Train students in the manner of approaching the people they are to contact.

7. Help students prepare a large map of the community.

8. Help students compile the data secured and prepare reports for the school and local newspaper.

9. Use colored pins or some other means (the author's class used tiny flags of colored construction paper scotch taped to common pins) to identify on the map places where workers of each classification are employed.

10. Make arrangements to display the map where townspeople may see it. Invite the suggestions and corrections of the townspeople.

11. Most important of all--use the wealth of information and experience gained by your pupils as a vital part of their study of occupational information.

APPENDIX B

Suggested Outline for Speakers

I. Title of position and explanation of what worker does

II. Qualifications

- A. Educational qualifications
- B. Physical qualifications
- C. Other special qualifications

III. Training

- A. Opportunities for beginners
- B. Necessary training--where may it be obtained

IV. Opportunities for promotion

V. Compensation

- A. Wages
- B. Other compensation(s)

VI. Working conditions

VII. Hazards

VIII. Related occupations

A P P E N D I X C

SPECIAL GUIDE SHEET I

Suggestions for Bulletin Board Displays

1. Select one central idea that you want the bulletin board to get across to the student body.

2. Select materials to be used carefully. Do not try to put too much material on the bulletin board.

3. Arrange materials in a pattern.

4. Have variety in the materials displayed so that the bulletin board will appeal to many different people.

5. Cut and mount materials carefully.

6. Change the bulletin board frequently but be sure that everyone who wants to see the display has had a chance to do so.

7. Assume responsibility for keeping the bulletin board dusted while your display is up.

8. Get the teacher's approval before putting any material on the bulletin board.

SPECIAL GUIDE SHEET II

Library Committee Suggestions

1. For each unit we will have a special reference shelf containing books borrowed from our school library, the town library, and the state library.

2. Members of the library committee will get the reference list for each unit one week before the unit is introduced and will see that the books from the school library and the town library are transferred to our classroom reference shelf before the new unit begins. The committee will also assume responsibility for returnig the books to the library on time.

3. The committee will also take care of receiving and shipping the books from the state library.

4. The committee will take care of issuing books from the reference shelf for over-night use. Librarians will check to see that the books are returned before school the next morning.

5. The committee will assume responsibility for the appearance of the reference shelf and help fellow students make selections.

6. If you have any further suggestions that you think will help the committee to function more smoothly, the teacher will be glad to have them.

SPECIAL GUIDE SHEET III

Data on Proposed Field Trip

1. Destination
2. Why do you consider this trip worthwile?

3. List pupils who plan to go on trip. (If the group is large, attach a separate sheet of paper.)

4. Signatures of adults who will accompany group.

5. Directions for reaching destination. (Include means of transportation.)

6. Points of interest along the way.

7. Cost (Be sure to estimate very carefully all expenses.)
8. When do you plan to go on this trip?

Get teacher's approval of all items above this line before completing the following:

1. What arrangements have you made with the person in charge of the place you plan to visit.

2. Name of person with whom you made arrangements.
3. Date arrangements were made.

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